

APPLICATIONS FOR ADMISSION AND FOR TRANSFER

The Constitution provides that the Board of Direction shall elect or reject all applicants for *Admission* or for *Transfer*, and, in order to determine justly the eligibility of each candidate, the Board must depend largely upon the Membership for information.

This list is issued to members in every grade for the purpose of securing all such available information, and every member is urged to scan carefully each monthly list of candidates and to furnish the Board with data in regard to any applicant which may aid in determining his eligibility. It is the *Duty* of all *Members* to the *Profession* to assist the Board in this manner.

It is especially urged, in communications concerning applicants, that errors in the record be pointed out and a *Definite Recommendation as to the Proper Grading in Each Case* be given, inasmuch as the grading must be based upon the opinions of those who know the applicant personally, as well as upon the nature and extent of his professional experience. If facts exist derogatory to the personal character or to the professional reputation of an applicant, they should be promptly communicated to the Board. *Communications Relating to Applicants are considered by the Board as Strictly Confidential.*

The Board of Direction will not consider the applications herein contained from residents of North America until the expiration of thirty (30) days, and from non-residents of North America until the expiration of ninety (90) days from December 1, 1929.

MINIMUM REQUIREMENTS FOR ADMISSION

Grade	General Requirement	Age	Length of Active Practice	Responsible charge of work
Member	Qualified to design as well as to direct work	32 years	12 years*	5 years
Associate Member	Qualified to direct work	25 years	8 years*	1 year
Junior	Qualified for sub-professional work	18 years†	4 years*	
Affiliate	Qualified by scientific acquirements or practical experience to co-operate with engineers			
Fellow	Contributor to the permanent funds of the Society			

* Graduation from a school of engineering of recognized reputation is equivalent to 4 years active practice.

† Membership ceases at age of 32 unless transferred to higher grade.

LIST OF APPLICANTS.

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The fact that applicants give the names of certain members as references does not necessarily mean that such members endorse.

The number in the center above each record indicates the serial number of the applicant for the current year, and that at the left the district in which he resides.

The abbreviations in *Italics* represent, respectively, *TT*, Total Time; *SP*, Sub-Professional Work; *P*, Professional Work; *RC*, Responsible Charge; *D*, Design. The figure for Total Time is determined by adding one-half the time spent in Sub-Professional Work to the time spent in Professional Work. The figures showing the amount of time spent in Responsible Charge and on Design are the estimate of the Applicant. The allowance of four years for graduation or of one-half of a year for each academic year successfully completed in an engineering college without graduation is included in Total Time and Professional Work.

FOR ADMISSION

1299

(10) AGRAN, IRVIN, 32 McPhillips Ave., Mobile, Ala. Graduating student awarded Illinois Section prize. (Age 24. Born Chicago, Ill.) 1929 B. S. in C. E., Lewis Inst. *TT* 4: *P* 4.—June to Sept. 1929 Draftsman, Northern Indiana Public Service Co., on substations. *TT* 0.2: *P* 0.2.—Sept. 1929 to date Jun. Engr., U. S. War Dept., hydro-electric development. *TT* 0.2: *P* 0.2.—*TT* 4.4: *P* 4.4. Refers to J. G. Bennett, W. D. Pence, C. L. Post, J. F. Selfried, E. B. Willson.

1300

(1) ANDRADE, FRANCISCO, Calle 71, No. 72 (Villa Lucy), Bogota, Colombia. (Age 40. Born Bogota, Colombia.) 1914 C. E., National Univ. March 1914 to May 1916 Draftsman and Topographer, General Staff of Army, and Asst. in Geodetic Dept., Colombia. *TT* 1.6: *SP* 0.6: *P* 1.—Aug. 1916 to Jan. 1920 Res. Engr. and Chf. Engr., Southern R. R. (Col.-Nat'l Rys.), 3 years on location, construction and maintenance, involving construction of permanent bridges and general reconstruction and ballasting of line. *TT* 3.5: *P* 3.5: *RC* 3.5: *D* 1.7.—Jan. to March 1920 Location Engr., Pacific R. R. (Col.-Nat'l Rys.) (Ramal F). *TT* 0.3: *P* 0.3: *RC* 0.3.—April to Oct. 1920 Engr., Boundary of Tropical Oil Concession, being Representative of Concessionaire. *TT* 0.7: *P* 0.7: *RC* 0.7.—Nov. 1920 to Dec. 1925 Engr. and Supt., first with Leonard Exploration Co. then with Leonard Oil Development Co., on geological and topographical surveys, highways, railways and pipe line location in Colombia. *TT* 5.2: *P* 5.2: *RC* 5.2: *D* 2.—1926 Chf. Engr., South American Gulf Oil Co., on Wilches region (Magdalena River), in charge of precise survey as base for aerial topographic and photographic. *TT* 1: *P* 1: *RC* 1.—April to June 1927 Engr., South American Oil Co., surveying Puerto Santos region (Magdalena Valley) and proposed road. *TT* 0.2: *P* 0.2: *RC* 0.2: *D* 0.2.—July 1927 to March 1928 Chf. Div. Engr., Cundinamarca Ry. (Dept. Ry.) in charge of survey, projected location and construction. *TT* 0.8: *P* 0.8: *RC* 0.8: *D* 0.3.—July 1928 to date Chf., Commercial Sec., Ministry of Public Works of Colombia, being Purchasing Agt., in charge of purchasing construction equipment and material. *TT* 1.4: *P* 1.4: *RC* 1.4.—*TT* 14.7: *SP* 0.6: *P* 14.1: *RC* 13.1: *D* 4.2. Refers to P. E. Calcedo, R. W. Hebard, J. Triana, P. Uribe Gauguin, G. Uribe H, R. K. West, H. C. Wilcox.

1301

(2) ARENANDER, CARL ALFRED, Pierce Hall, Cambridge, Mass. (Age 23. Born Newark, N. J.) 1928 B. S. in C. E., Swarthmore Coll. 1929 M. S. in San. Eng., Harvard Eng. School. *TT* 4: *P* 4.—Summers 1925-1927 Rodman and Transitman, with Essex County Engr., Newark, N. J.—Summer 1928 Inspector of Street Constr., City of Newark.—June to Sept. 1929 Inspector, City of Springfield, Mass., at Cobble Mt. Dam, Westfield, Mass. *TT* 0.1: *SP* 0.1.—Sept. 1929 to date Asst. in Civ. Eng., Harvard Eng. School. *TT* 0.1: *SP* 0.1.—*TT* 4.2: *SP* 0.2: *P* 4. Refers to E. W. Doeblor, G. M. Fair, W. E. Fuller, A. Haertlein, H. J. Hughes.

1302

(4) **ARMAS, BENJAMIN**, 218 Rochelle Ave., Wissahickon, Philadelphia, Pa. (Age 27. Born Trujillo, Peru.) 1922 Graduate, equivalent to B. S., St. John's Coll., Peru. Sept. 1923 to June 1925 Student in Civ. Eng., Columbia Univ., N. Y. City. *TT 1: P 1.*—June 1925 to date Structural Steel Draftsman, American Bridge Co., Pencoyd, Pa., detailing, figuring, making plans and specifications. *TT 3: SP 1.3: P 1.7.*—*TT 4: SP 1.3: P 2.7.* Refers to F. L. Castleman, L. D. Draper, J. K. Finch, P. M. Sax, J. E. Wadsworth.

1303

(7) **BENSON, MONS HERMAN**, 416 Federal Bldg., Grand Rapids, Mich. (Age 25. Born Minneapolis, Minn.) 1928 B. Sc. in C. E., Univ. of Minn. *TT 4: P 4.*—March 1928 to date with U. S. Engr. Office, Grand Rapids, Mich., until March 1929 as Inspector making soundings of river and harbors, pier repair work, inspecting harbor structures, drawing plans for pier repairs, plotting soundings, estimating dredging, checking field reports, etc., then Jun. Engr. in charge of sounding and survey crew, being Inspector on concrete pier construction, passing on methods and quality. *TT 1.4: SP 0.2: P 1.2: RC 0.9: D 0.3.*—*TT 5.4: SP 0.2: P 5.2: RC 0.9: D 0.3.* Refers to A. S. Cutler, L. W. Goddard.

1304

(8) **BERGSTROM, SAMUEL HERBERT**, 112 West 109th St., Chicago, Ill. (Age 25. Born Chicago, Ill.) 1929 B. S., Univ. of Ill. *TT 4: P 4.*—March 1926 to Sept. 1927 (while student) Chairman, and summer 1928 Draftsman, Illinois Central R. R.—June 1929 to date Asst. Engr., Chicago Terminal Div., Wabash Ry. Co. *TT 0.4: P 0.4.*—*TT 4.4: P 4.4.* Refers to W. C. Huntington, E. E. King, T. C. Shedd, J. Vawter, C. C. Wiley.

1305

(9) **BIRNBAUM, HARRY**, 2249 North Meridian St., Indianapolis, Ind. (Age 27. Born New York City.) 1928 B. C. E., Ohio State Univ. *TT 4: P 4.*—Aug. 1928 to date Asst., Engr. Corps, Pennsylvania R. R., until Nov. 1928 with Chicago (Ill.) Terminal Div., on maintenance-of-way, laying out tracks, then with Indianapolis (Ind.) Div., being Engr. in charge of bridge construction. *TT 1.2: SP 0.1: P 1.1: RC 1.*—*TT 5.2: SP 0.1: P 5.1: RC 1.* Refers to W. J. Howard, J. M. Montz, C. T. Morris, C. E. Sherman, R. C. Sloane.

1306

(7) **BOATNER, MARK MAYO, Jr.**, Mil. Dept., Iowa State Coll., Ames, Iowa. (Age 33. Born New Orleans, La.) 1918 2d Lieut., U. S. Mil. Acad. *TT 4: P 4.*—Student, Tulane Univ. of Louisiana (1914 to 1916), C. E. Course, Engr. School, U. S. Army (1918 to 1920), and basic course, Engr. School (1921).—June 1920 to date with U. S. Army, at present as First Lieut., Corps of Engrs., engaged as follows: June to Dec. 1920 Co. Commander with Recruit Educational Center and with 9th Engrs. (Mounted); June 1921 to June 1922 at Post Headquarters, Ft. Humphreys, Va., Mess Officer, R. O. T. C. Camp, Post Exchange, Ordnance, Police and Prison, Recreation and C. W. F. Officer; July 1922 Instructor, Engr., Pennsylvania National Guard; July 1922 to Jan. 1923 Co. Commander, Headquarters and Service Co., 13th Engrs., on preparation of technical regulation on mechanic of bridge design and strength of materials; Jan. 1923 to Jan. 1926 with 11th Engrs., Panama, as Lieut. and Co. Commander, including (3 dry seasons) military survey of Panama, being in charge of detached camps or reconnaissance; since March 1926 Assoc. Prof., Mil. Dept., Iowa State Coll., Engr. Unit, engineering and military subjects. *TT 7.9: SP 0.8: P 7.1: RC 5.3: D 0.2.*—*TT 11.9 SP 0.8: P 11.1: RC 5.3: D 0.2.* Refers to A. S. Ackerman, T. R. Agg, Q. C. Ayres, J. S. Butler, A. H. Fuller, W. B. Gregory, H. Kramer, A. Marston.

1307

(15) **BORGWARDT, WILLIAM MAX**, 5425 Columbia Ave., Dallas, Tex. (Age 35. Born Berlin, Germany.) 1918 B. S. C. E., Purdue Univ. *TT 4: P 4.*—May 1913 to Sept. 1914 Rodman and Computer, Morgan Eng. Co., Dayton, Ohio, stadia surveys, some instrument work. *TT 0.7: SP 0.7.*—May to Aug. 1918 Instrumentman, Baltimore & Ohio R. R., in charge of transit party. *TT 0.3: P 0.3.*—Sept. 1918 to May 1919 with Black & Veatch, Cons. Engrs., Kansas City, Mo., as Instrumentman and Inspector on cantonment construction, Camp Pike, Ark., and water-supply investigation, Eldorado, Kans. *TT 0.7: P 0.7.*—April 1919 to Sept. 1922 Asst. Engr., with County Engr., Leavenworth County, Kans., on design, location and supervision of construction of grading, structures and concrete pavements, Federal Aid Project No. 13. *TT 3.4: P 3.4: RC 2.9.*—Sept. 1922 to Jan. 1923 Timekeeper, Missouri Valley Bridge & Iron Co., Leavenworth, Kans. *TT 0.2: SP 0.2.*—March 1923 to Dec. 1924 and May to Dec. 1926 Res. Engr., E. T. Archer & Co., Kansas City, Mo., on surveys and plans and in responsible charge of construction of brick and concrete pavements and storm sewers and after May 1926 on concrete paving construction at Siloam Springs, Ark. *TT 2.4: P 2.4: RC 2.4.*—Jan. 1925 to April 1926 member of firm, Hogan-Borgwardt

Motor Co., Blytheville, Ark., not engineering.—Feb. 1927 to date Field Engr., The Philip Carey Co., Cincinnati, Ohio, on promotional work.—*TT 11.7: SP 0.9: P 10.8: RC 5.8.* Refers to O. N. Floyd, J. D. Fowler, C. V. R. Fullenwider, J. W. Shikles, N. T. Veatch.

1308

(1) **BRAST, WERNER HANS**, 160 Babylon Turnpike, Roosevelt, N. Y. (Age 43. Born Baden, Switzerland.) Licensed Prof. Engr., State of New York. 1908 C. E., Eidgenossisches Polytechnikum, Zurich. *TT 4: P 4.*—1908 to 1910 Designer for Gutehoffnungshutte, Oberhausen (Germany), Structural Steel Dept., on railroad and highway bridges, headframes for coal mines, industrial plants. *TT 2: P 2: D 2.*—1910 to 1916 and 1919 to 1921 Checker and Designer, Hinkle Iron Co., New York City, on design and construction of numerous apartment houses, loft buildings, theatres, garages, etc., including Astor Court Apartments, Gotham National Bank, etc. *TT 7.5: SP 1: P 6.5: RC 5: D 6.5.*—1916 to 1917 Checker, Purdy & Henderson Co., Cons. Engrs., New York City. *TT 0.5: P 0.5: RC 0.5.*—1917 to 1919 Designer 1½ years with Chile Exploration Co., then with American Sugar Refining Co., New York City. *TT 2.2: P 2.2: D 2.2.*—1921 to 1923 Chf. Draftsman, Designer and partner with J. Langfur, Cons. Engr., New York City, on design and construction of the Bar, Gidding and Colby Bldgs. *TT 1.5: P 1.5: RC 1.5.*—1923 to 1924 Checker, Taylor, Fichter Steel Construction. *TT 0.5: P 0.5: RC 0.5.*—1924–Oct. 1929 Engr. and in charge of Eng. Dept., Crow, Lewis & Wick, Archts., New York City, on design and construction of about 40 buildings, including the Doctors', French and St. Mark's Hospitals and Home for Incurables, all in New York City, Jewish Hospital, Brooklyn, St. Elizabeth Hospital, Elizabeth, N. J., Englewood (N. J.) Hospital, Paterson (N. J.) General Hospital, Charlotte Hungerford Hospital, Torrington, Conn., Wheeling (W. Va.) Hospital, Library Building for College of City of New York, Guggenheim School for Aeronautics, New York Univ., etc.; since 1920 also acted as Cons. Engr. for Sugarman & Berger, F. Rooke, Severance & Van Allen, Archts., Henry Weltzner, Contr., all in New York City, on various buildings. *TT 5.8: P 5.8: RC 5.8: D 5.8.*—*TT 2.4: SP 1: P 2.3: RC 13.3: D 16.5.* Refers to D. Y. Dimon, A. Geist, D. Gutman, L. H. Lewis, H. I. Oser, S. F. Tapman.

1309

(10) **BREWTON, HOWARD LEE**, 418 Sixth Ave. N., Nashville, Tenn. (Age 22. Born Thomasville, Ga.) 1929 B. S. in C. E., Ga. School Tech. *TT 4: P 4.*—Feb. 1926 to Sept. 1927 with W. O. Mills Contr. Co. as Asst. Foreman and (about 1 year) Foreman on railroad concrete and timber construction. *TT 0.9: SP 0.9.*—June 1925 to date Jun. Inspector, Research Dept., Tennessee Highway Dept. *TT 0.5: P 0.5.*—*TT 5.4: SP 0.9: P 4.5.* Refers to R. P. Black, D. D. McGuire, F. C. Snow.

1310

(5) **BURCH, JAMES SCOTT, Jr.**, 914 National Press Bldg., Washington, D. C. (Age 27. Born Durham, N. C.) Registered Engr., State of North Carolina.—1921 B. A. in Eng., Duke Univ., Trinity Coll. *TT 4: P 4.*—July to Dec. 1921 Inspector and Rodman, Gilbert C. White Co., Durham, N. C., on survey for highways, inspection of concrete bases and bridges. *TT 0.3: SP 0.3.*—Jan. 1922 to May 1929 with North Carolina State Highway Comm., until May 1923 Instrumentman and Inspector on design, survey, location and inspection, and May 1923 to Feb. 1927 Res. Engr. in charge of surveying, planning, construction, inspection, on grading, drainage, asphalt and concrete paving, timber, steel and concrete bridges, and after Feb. 1927 Asst. Locating and Claims Engr., special investigations on locations, damage claims, land valuations, assessments, improvement benefits, acting as Attorney General's Engr. Asst. *TT 6.7: SP 0.6: P 6.1: RC 6.1: D 6.1.*—May 1929 to date Asst. Engr., American Road Builders' Association, Washington, D. C., in charge of special research investigation on subgrades and pavement bases for roads and streets. *TT 0.5: P 0.5: RC 0.5: D 0.5.*—*TT 11.5: SP 0.9: P 10.6: RC 6.6: D 6.6.* Refers to L. R. Ames, C. O. Boyd, C. N. Conner, C. C. Fulton, Jr., J. B. Pridgen, F. E. Schnepfe, C. M. Upham.

1311

(7) **CAREY, HAROLD NEVIN**, Route 5, Box 27, Ann Arbor, Mich. (Age 22. Born Cleveland, Ohio.) 1929 B. S. in Eng., Univ. of Mich. *TT 4: P 4.*—Sept. 1927 to May 1928 with Macomb County (Mich.) Drain Commr., until Nov. 1927 Draftsman on drain and sewer plans, and after Nov. 1927 Inspector on construction of monolithic concrete, brick and reinforced concrete sewers. *TT 0.4: SP 0.4.*—May to Sept. 1928 Inspector with City Engr. until July of Pontiac, and then of Ann Arbor, Mich., on construction of vitrified and reinforced concrete pipe and sewers. *TT 0.3: SP 0.1: P 0.2.*—Oct. 1929 to date Jun. Field Engr., Menefee and Dodge, Ann Arbor, Mich., supervising construction of reinforced concrete pipe and vitrified pipe sewer. *TT 0.2: P 0.2.*—*TT 4.9: SP 0.5: P 4.4.* Refers to G. M. Bleekman, H. Brodie, C. O. Carey, R. A. Dodge, C. T. Johnston, H. J. McFarlan, T. J. Mitchell, D. G. Ramsay, R. H. Sherlock, A. M. Steffes, J. A. Van den Broek.

1312

(11) **CLYDE, GEORGE DEWEY**, 615 East 5th St. North, Logan, Utah. (Age 31. Born Springville, Utah.) 1921 B. S. in Agri. Engr., Utah State Agri. Coll. and 1923 M. S. in Civ. Engr., Univ. of Cal. *TT 4: P 4*.—Summer 1921 with Utah State Agri. Coll. on Design of Hydraulics Research Laboratory, supply reservoir, calibration tanks and layout of flume in laboratory.—Summer 1922 Jun. Office Engr., State Dept. of Public Works, California water resources investigations, on stream-flow analysis and in stress analysis of gravity dams.—July 1923 to date with Utah State Agricultural Coll. and Utah Experiment Station, until June 1928 as Asst. Prof. of Eng. and Asst. Irrigation Engr., and since July 1928 Associate Prof. of Civ. Engr. and Associate Irrigation Engr.; summers also on survey of gravel control sites in Central and Southern Utah (1924), and Hydr. Engr. on special investigation of return flow into Cache Valley, Utah (1925), for U. S. Bureau of Public Roads, Chf. of Party, American Smelting and Refining Co., on special investigations of air currents at Garfield Smelter (June to July 1926), Water Commr. for Logan River Water Users Assoc., in charge of distribution of all waters of Logan River (1926–1929), Instrumentman on right-of-way survey, Logan and Northern Canal, U. S. Bureau of Reclamation (Aug. to Sept. 1929). *TT 6.5: P 6.5: RC 6.5.—TT 10.5: P 10.5: RC 6.5*. Refers to G. M. Bacon, O. W. Israelsen, S. T. Harding, A. B. Purton, E. Schaub, R. B. West, L. M. Winsor.

1313

(5) **COLBURN, BURNHAM STANDISH, Jr.**, Chapel Hill, N. C. (Age 23. Born Detroit, Mich.) 1929 B. S. in Civ. Engr., Univ. of N. C. *TT 4: P 4*. Refers to G. M. Braune, T. F. Hickerson, T. Saville.

1314

(15) **COOK, ALBERT CARLTON**, 105 Sparks Ave., Austin, Tex. (Age 37. Born Decatur, Ind.) 1929 B. S. in Civ. Engr., Univ. of Tex. *TT 4: P 4*.—Jan. 1910 to Aug. 1914 and March to Dec. 1916 Chainman and Rodman, St. Louis & Southwestern Ry. and St. Louis & San Francisco Ry., on maintenance of way, new tracks, etc. *TT 2.3: SP 2.3*.—Dec. 1916 to March 1917 Instrumentman, Brennan & Rooney Constr. Co., Tulsa, Okla., on pipe line survey, Ardmore, Okla. to Ft. Worth, Tex. *TT 0.1: SP 0.1*.—May 1917 to March 1919 Sergeant, Co. A, 2d Engrs., U. S. Army, on sewerage line work in El Paso, railroad construction and street work, also taught engineering; 6 months in France. *TT 0.9: SP 0.9*.—March to May 1917 Field Engr., and March 1919 to Oct. 1920 Asst. Engr., Pierce Pipe Line Co., Ft. Worth, Tex., setting stakes, and superintending construction work on pipe line and (after March 1919) in charge of survey party on pipe line from Wiles to Ft. Worth, Tex. *TT 1.7: SP 0.1: P 1.6: RC 1.6*.—Oct. 1920 to April 1921 Field Engr., Sun Oil Co., Ranger, Tex., on property and lease lines, new well locations, pipe lines, completion reports. *TT 0.5: P 0.5: RC 0.5*.—June to Sept. 1925 Hydrographer, State Board of Water Engrs. and U. S. Geological Survey, stream measurement, discharge, computations.—June to Aug. 1926 Draftsman, Miller Blue Print Co., Austin, Tex. (1 month) and Acting City Engr., Georgetown, Tex. *TT 0.2: P 0.2: RC 0.2*.—Aug. 1926 to Sept. 1927 Res. Engr., State Highway Dept., Austin, Tex., on construction and in charge of 22 miles new highway. *TT 1: P 1: RC 1*.—Sept. 1927 to date Asst. Office Engr., State Board of Water Engrs., Austin, Tex., checking plans for irrigation projects and dams and on general office work. *TT 0.3: P 0.3.—TT 11: SP 3.4: P 7.6: RC 3.3*. Refers to E. C. H. Bantel, C. S. Clark, C. E. Ellsworth, O. A. Faris, C. E. McCashin, J. A. Norris, T. U. Taylor.

1315

(5) **DAVIS, RALPH GRAY**, 105 Delaware Ave., Elkton, Md. (Age 41. Born Elkton, Md.) 1911 B. Sc. in C. E., Univ. of Del. *TT 4: P 4*.—June 1911 to date (except Jan. 1918 to Sept. 1919 2d Lieut., Engrs., U. S. Army) with U. S. Engr. Office, Wilmington, Del., engaged as follows: June 1911 to March 1912 Surveyman, acting as Rodman, Chainman, Recorder and Sub-Transitman on hydrographic surveys, reduction of field notes, platting surveys, making finished tracings of maps, computing, etc.; April 1912 to Dec. 1913 Asst. Inspector and Inspector in charge of dredging, laid out, supervised, computed and made periodical reports on work and final surveys; Jan. 1914 to June 1917 Inspector, acting as Chf. Inspector directing and coordinating work of inspectors, Chf. of hydrographic survey party, superintended work of removing wrecks in Atlantic Ocean also Topographical Draftsman and Computer in office; July to Dec. 1917 Inspector acting as Draftsman on design of jetties, bulkheads, buildings, etc., Asst. to fortification designer, designed reinforced concrete structures and steel fittings, detailing and laying out work in field, mapping and estimating; Oct. 1919 to Dec. 1921 Jun. Engr., in charge of field parties, designing, planning and laying out work for reconstruction of Chesapeake and Delaware Canal (\$10 500 000 project), being Asst. to Supt. of Constr.; Jan. 1922 to Dec. 1928 Jun. Engr. and Asst. Engr., being Engr. in charge of surveys, field engineering parties, drafting room, computing designing and engineering investigations, stream gauging, studies of ocean currents, flow in tidal canals, researches,

etc., and since Jan. 1928 Engr. in charge of Projects Dept., maintenance and improvement of 28 projects, directing work of Engineering and Design, Contract Dredging, Drafting, Field Engineering, C. & D. Canal and Surveys Divisions. *TT 18.4: SP 0.9: P 17.5: RC 14.3: D 12.6.—TT 22.4: SP 0.9: P 21.5: RC 14.3: D 12.6.* Refers to E. I. Brown, H. F. Flynn, W. J. Gray, R. P. Howell, C. R. Hughes, J. L. Nagle, H. S. Stanton.

1316

(8) **DOLAN, THOMAS JAMES**, 1011 South Sixth St., Champaign, Ill. Graduating student awarded Illinois Section prize. (Age 22. Born Chicago, Ill.) 1929 B. S., Univ. of Ill. *TT 4: P 4.*—Summers 1926 and 1927 Jun. Clerk, Chicago Water Works, Div. of Operations.—Summer 1928 Machinist Helper, Galewood Shops, Chicago, Milwaukee, St. Paul & Pacific R. R.—Summer 1929 with Chicago Bridge and Iron Works. *TT 0.1: SP 0.1.*—Sept. 1929 to date Asst. in Theoretical and Applied Mechanics, Univ. of Illinois, Urbana, Ill. *TT 0.1: SP 0.1.—TT 4.2: SP 0.2: P 4.* Refers to W. C. Huntington, M. S. Ketchum, W. D. Pence, C. L. Post, J. F. Seifried.

1317

(7) **DRISKILL, WILLIAM CHARLES**, Spearfish, S. Dak. (Age 24. Born Spearfish, S. Dak.) 1928 B. S. in Civ. Eng., S. Dak. School of Mines. *TT 4: P 4.* Refers to J. C. Rathbun, W. B. Wendt.

1318

(4) **FOLEY, JOSEPH ANTHONY**, P. O. Box 218, Coatesville, Pa. (Age 29. Born Covington, Ky.) 1927 B. S., Antioch Coll. *TT 4: P 4.*—April 1920 to Aug. 1923 with R. H. Randall & Co., Toledo, Ohio, as Planetable Topographer and Computer at Flint, Mich., Computer on precise level survey, Grand Rapids, Mich., in charge of precise level survey, Greensboro, N. C., and Office Engr., Lynchburg, Va. *TT 2.7: SP 0.7: P 2: RC 2.*—Sept. 1923 to June 1927 (while student) Asst. in Eng., Antioch Coll., with some responsibility, on work for Miami Conservancy Dist., Dayton, Upper Scioto Conservancy Dist., Kenton, Village of Yellow Springs, Dayton-Morgan Eng. Co., Dayton, Ohio, etc.—July to Dec. 1927 Transitman, Erie R. R., Jersey City, N. J., in charge of survey party and inspection during building and installing of machine shop, trackage and structures for fruit yard, etc. *TT 0.4: P 0.4: RC 0.4.*—Dec. 1927 to date Asst. Supt. of Constr., International Coal Carbonization Co., New York City, on construction of low-temperature coke plants (each about 25 buildings) at New Brunswick, N. J., and Coatesville, Pa., with conveyors, railroads, bridges, gas and mechanical equipment; design includes railroads, stream changes, pipe lines, etc. *TT 1.9: P 1.9: RC 1.9: D 0.5. TT 9: SP 0.7: P 8.3: RC 4.3: D 0.5.* Refers to J. E. Jones, A. E. Morgan, P. C. Nash, R. H. Randall, G. D. Whitmore, S. K. Young.

1319

(12) **FOWLER, FRED TRACY**, 425 City Hall, Portland, Ore. (Age 39. Born Charlotte, Mich.) 1909 to 1910 student, Univ. of Oregon. *TT 0.5: P 0.5.*—Nov. 1910 to Jan. 1912 Draftsman, until June 1911 with Rowland & Fortner, then with County Assessor of Multnomah County, Ore. *TT 0.6: SP 0.6.*—Jan. 1912 to date with City of Portland, Ore., as Draftsman, on office work for park plans, road and building construction (3 years), design of reinforced concrete viaducts and concrete structures, office and field work on construction, etc., and (since June 1920) Bridge Engr. on design and construction of reinforced concrete braced spandrel arch (150-ft. span, total length 300 ft., \$24 845), reinforced concrete viaduct, East 33d St. grade elimination (\$42 000), Viata Ave. arch viaduct (250-ft. span, \$190 000), Vancouver Ave. viaduct, grade elimination (220 ft. long, filled approaches, \$109 000), Terwilliger Boulevard Viaduct, 100-ft. arch with cantilever arch approaches (total length 200 ft., estimated cost \$58 000, design only), East 33d St. viaduct, grade elimination, (336 ft. long, filled approaches, estimated cost \$74 000), Front St. intercepting sewer and drainage system, intercepting sewer-pumping plant, 5 300 lin. ft. concrete bulkhead wall on timber crib (total cost \$2 500 000), etc. *TT 17: SP 1: P 16: RC 9.5: D 11.—TT 18.1: SP 1.6: P 16.5: RC 9.5: D 11.* Refers to J. W. Cunningham, D. C. Henny, C. P. Keyser, G. Kimbrell, O. Laurgaard, B. S. Morrow, S. Murray, F. M. Randlett, O. E. Stanley, J. C. Stevens.

1320

(11) **GEWERTZ, MOE WILLIAM**, 1025 S. Normandie Ave., Los Angeles, Cal. (Age 24. Born New York City.) 1928 B. S. in Eng., Cal. Inst. Tech. *TT 4: P 4.*—July to Dec. 1928 Jun. Highway Engr., U. S. Bureau of Public Roads, being Office man on construction, etc., progress estimates on bridge and highway work, and drafting. *TT 0.2: SP 0.2.*—Jan. to March 1929 Draftsman and Computer, Los Angeles County Flood Control Dist. *TT 0.1: SP 0.1.*—March 1929 to date Draftsman and Computer, Fisher-Ross-MacDonald and Kahn, also acted as Transitman. *TT 0.3: SP 0.3.—TT 4.6: SP 0.6: P 4.* Refers to R. R. Martel, F. Thomas.

1321

(13) **GREY, ULRIC RUPERT**, 1331 Green St., San Francisco, Cal. (Age 40. Born Liverpool, England.) Registered Prof. Engr., State of Oregon.—1913 to 1914 Chainman and Rodman with Cleveland & Cameron, Vancouver, B. C., Canada, on drainage and hydraulic land surveys. *TT 0.5: SP 0.5.*—1915 to 1918 Transitman, successively with Riverside County Highway Comm., Riverside, Cal., on location, Lake Hemet Land & Water Co., Hemet, Cal., on water transmission, location and construction, and Oregon State Highway Dept., on location, Columbia River highway. *TT 1.3: SP 1.3.*—1918 to 1919 Field Engr., 56th Aviation Squadron, U. S. Army, on railroad location and construction. *TT 0.4: SP 0.4.*—1919 to 1922 Locating Engr., Res. Engr. and Supt., Oregon State Highway Dept., Columbia River, Oregon-Washington and Baker-Unity highways. *TT 3.7: P 3.7: RC 3.7: D 2.*—1922 to 1924 County Engr., Baker County, Ore., on location and construction of highways as Market Road Engr. under State supervision. *TT 1.5: P 1.5: RC 1.5: D 1.5.*—1924 to 1925 in private practice as Civ. Engr., and Asst. Engr., Oregon-American Lumber Co., on railroad location and construction. *TT 1: P 1: RC 1: D 1.*—1925 to 1926 Office Engr., Coos County, Ore., on location and design of market roads under State supervision. *TT 1: P 1: RC 1: D 1.*—1926 to 1927 Project Engr., Missouri State Highway Dept., on paved highway construction. *TT 0.9: P 0.9: RC 0.9.*—1927 to 1928 in private practice as Civ. Engr., and County Engr., Madras, Ore., on location and construction of county highways and logging railroads. *TT 1.8: P 1.8: RC 1.8: D 1.8.*—*TT 12.1: SP 2.2: P 9.9: RC 9.9: D 7.3.* Refers to L. Griswold, L. I. Hewes, R. A. Klein, C. B. McCullough, A. G. Skelton.

1322

(15) **HAILE, CHARLES RADCLIFFE**, County Engr., Houston, Tex. (Age 40. Born San Antonio, Tex.) 1912 B. S. in C. E., Agri. and Mech. Coll. of Tex. *TT 4: P 4.*—July 1912–Dec. 1913 Asst. Res. Engr., National Rys. of Mexico, on construction of La Línea de la Costa del Golfo, Tampico south. *TT 1.5: P 1.5: RC 0.5.*—April–July 1914 Timekeeper on tunnel construction for Trajano Madeiro, Contr., on Astrada do Ferro Central do Brasil, between Rio de Janeiro and Sao Paulo, Brazil. *TT 0.2: SP 0.2.*—July 1914–June 1916 Asst. Engr., Light & Power Co. of Rio de Janeiro, on water-tunnel construction. *TT 1.9: P 1.9: D 0.5.*—April 1917 to Aug. 1919 Student, Officers' Reserve Corps, 1st Lieut. and Capt., 315th Engrs., 90th Div., U. S. Army. *TT 2.3: P 2.3.*—Sept. 1919 to May 1921 Asst. County Engr., Kleberg County, Tex., on road construction. *TT 1.7: P 1.7.*—May 1921 to May 1924 Div. Engr., and May 1924–Feb. 1925 Constr. Engr., State Highway Dept. of Texas. *TT 3.7: P 3.7: RC 3.7: D 0.7.*—March to Sept. 1925 member of firm, Jno. F. Buckner & Co., Bridge Contrs., and Sept. 1925 to Jan. 1927 of firm, James W. Francis & Co., Dealers in Contrs. Equipment. *TT 0.5: P 0.5: RC 0.5.*—Jan. 1927 to Feb. 1929 Asst. County Engr., and Feb. 1929 to date County Engr., Harris County. *TT 2.7: P 2.7: RC 0.7: D 2.7.*—*TT 18.6: SP 0.2: P 18.4: RC 5.5: D 4.* Refers to G. G. Edwards, G. Gilchrist, J. M. Howe, H. C. Porter, G. G. Wickline, A. J. Wise.

1323

(14) **HALL, LEWIS WATSON**, 303 West Olive St., Russellville, Ark. (Age 26. Born Dardanelle, Ark.) 1924 B. S. in C. E., Univ. of Okla. *TT 4: P 4.*—June to Sept. 1924 Concrete Highway and Sewer Constr. Inspector and Instrumentman, also on surveys. *TT 0.1: SP 0.1.*—Oct. 1924 to Jan. 1925 with Arkansas State Geological Dept., 1 month on map work, then in charge of oil field investigation near Stephens, Ark. *TT 0.3: SP 0.1: P 0.2: RC 0.2.*—Feb. and March 1925 with Monolith Bldrs., Inc., Contrs. and Engrs., Little Rock, Ark., on plans and detailing of reinforced concrete office buildings, warehouses, etc. *TT 0.2: P 0.2.*—April 1925 to Jan. 1926 Structural Draftsman, Arkansas Foundry Co., Little Rock, on plans and shop drawings. *TT 0.8: P 0.8.*—Feb. to March 1926 Draftsman with Wittenburg & Deloney, Archts., Little Rock, detail work on plans for high school. *TT 0.1: SP 0.1.*—April to June 1926 on special work, including plans and details for construction of three large concrete warehouses for Monolith Bldrs., Inc., isometric drawings (for insurance ratings) and details of buildings of Little Rock Packing Co. and Little Rock Retail Grocers' Ice Co. for W. C. Woodlief, Appraisal Engr., etc. *TT 0.3: SP 0.1: P 0.2: RC 0.2.*—July 1926 to date with Arkansas State Highway Dept., until Dec. 1926 as Draftsman, then Squad Boss in charge of highway plans and plans for special structures, also checking plans, July 1927 to Oct. 1929 Office Engr., Dist. No. 8, Russellville, Ark., in charge of design, plans and office work for construction (\$3 549 000); since Aug. 1929 also Res. Engr. surfacing (\$63 000). *TT 3.1: SP 0.2: P 2.9: RC 2.3.*—*TT 8.9: SP 0.6: P 8.3: RC 2.7.* Refers to C. C. Burkett, J. P. Gallagher, N. B. Garver, R. C. Gibson, R. D. Likins, H. C. Sellers, W. W. Zass.

1324

(4) **HANCOCK, WILLIAM GAW**, 41 West Eagle Road, Upper Darby, Pa. (Age 37. Born Philadelphia, Pa.) Registered Prof. Engr., State of Pennsylvania. 1915 B. S. in Civ. Eng., Pa. State Coll. *TT 4: P 4*.—Feb. 1916 to Feb. 1917 Rodman, Pennsylvania R. R., designed 2 reinforced concrete bridges. *TT 0.7: SP 0.3: P 0.4: D 0.4*.—Feb. 1917 to Aug. 1921 Civ. Engr., City Blast Furnaces, Carnegie Steel Co., Pittsburgh, Pa., in responsible charge of construction; designed reinforced concrete walls for ore bridge, Warren truss for carrying water main over railroad, river wall for barge unloading, grade crossing elimination, 80-ft. span railroad bridge. *TT 4.5: P 4.5: RC 2.5: D 2*.—Aug. 1921 to Feb. 1923 Civ. Engr. (private practice) on design of Community House retaining wall, drive and roads, surveying, mapping, subdividing, etc. *TT 1.5: P 1.5: D 0.5*.—Feb. 1923 to June 1924 Borough Engr., South Coatesville, Pa., on design of sewer systems, sewage-disposal plant, streets and storm drainage and in responsible charge of construction of highways and sewer systems. *TT 1.4: P 1.4: RC 0.7: D 0.7*.—June 1924 to Aug. 1925 Supt., Pennsylvania State Highway Dept., in charge of maintenance and construction of highways, bridges, etc., Dauphin, Lebanon and Cambria Counties. *TT 1.2: P 1.2: RC 1.2*.—Aug. 1925 to Nov. 1927 Constr. Engr., International Motor Co., Allentown, Pa., in responsible charge of constructing automobile plant, including an 80-ft. span railroad bridge with two 30-ft. approaches, highways, sanitary and storm sewer, drainage, power house, including boiler, stoker, coal and ash equipment. *TT 2.3: P 2.3: RC 2.3*.—Nov. 1927 to Feb. 1929 Asst. City Engr., Allentown, in charge of bridge design and repairs, special highway and sewage-disposal plant construction. *TT 1.2: P 1.2: RC 0.6: D 0.6*.—Feb. 1929 to date Chf. Engr., Stonhard Co., Philadelphia, Pa., in charge of design, construction and sales promotion, floor and highway construction. 1929 (evenings) also teaching mechanics, surveying, strength of materials and reinforced concrete, Pennsylvania State Coll. *TT 0.8: P 0.8: RC 0.8*.—*TT 17.5: SP 0.3: P 17.2: RC 8: D 4.2*. Refers to L. P. Bailey, C. E. Carter, B. C. Collier, W. H. Collison, Jr., G. E. Pidcock, W. A. Van Duzer, E. D. Walker.

1325

(4) **HANRAHAN, FRANCIS JOHN**, 103 Eng. "A", State College, Pa. (Age 28. Born Morris, Minn.) 1927 B. S. C. E., Purdue Univ. *TT 4 P 4*.—1927 to date teaching mechanics and materials of construction, Pennsylvania State Coll.; summers teaching Civ. Eng., Purdue Univ. Camp (1927) and Materials Engr., Dept. of Highways, Commonwealth of Pennsylvania (1928 and 1929). *TT 2.2: P 2.2*.—*TT 6.2: P 6.2*. Refers to P. B. Breneman, R. L. Sackett, E. D. Walker.

1326

(8) **HARRIS, RAYMOND PAUL**, 925 Montrose Ave., Chicago, Ill. Graduating student awarded Illinois Section prize. (Age 22. Born Brazil, Ind.) 1929 B. S. in C. E., Rose Pol. Inst. *TT 4: P 4*.—June 1929 to date Asst. Engr., Cement Products Bureau, Portland Cement Assoc., Chicago, Ill. *TT 0.2: SP 0.2*.—*TT 4.2: SP 0.2: P 4*. Refers to R. E. Hutchins, R. L. McCormick, W. D. Pence, C. L. Post, J. F. Selfried.

1327

(5) **HECHT, MAURICE ALBERT**, U. S. Coast and Geodetic Survey, Washington, D. C. Graduating student awarded Illinois Section prize. (Age 24. Born Chicago, Ill.) 1929 B. S. in Eng. and C. E., Northwestern Univ. *TT 4: P 4*.—Summer 1925 Laborer and Material Checker, French Constr. Co., Chicago, Ill., and Line Helper, Public Service Co., Evanston, Ill.—Sept. 1928 to June 1929 Fellowship Laboratory Instructor in Civ. Eng., Northwestern Univ. School of Eng., assisted in surveying. At present Deck Officer, U. S. Coast and Geodetic Survey.—*TT 4: P 4*. Refers to G. A. Maney, W. D. Pence, C. L. Post, J. F. Selfried.

1328

(15) **JAMES, GUY HERNDON**, 1404 Ashton Place, Oklahoma City, Okla. (Age 30. Born Bancroft, Mo.) 1929 B. S. in C. E., Okla. Agri. & Mech. Coll. *TT 4: P 4*.—May 1920 to Feb. 1921 Asst. City Engr., and May 1921 to March 1922 City Engr., Okemah, Okla., in charge of inspection and of field party setting construction stakes on paving (\$100 000) and sewer project (\$300 000) and (after May 1921) in charge of water extension (\$150 000). *TT 1.5: SP 0.1: P 1.4: RC 0.8*.—March to Sept. 1922 Highway Location Engr., Okfuskee Co., Okla., in charge of two field parties on 43 miles of Federal Aid road location. *TT 0.5: P 0.5*.—Sept. 1922 to Oct. 1928 and May 1929 to date with Oklahoma State Highway Dept., until March 1923 as Draftsman, then Res. Engr. in charge of grading, draining and gravel surfacing 18 miles of Federal Aid road, then Asst. Res. Engr. in charge of field party and inspecting on Winding Stair Mountain Highway in Le Flore Co., March 1925 to Oct. 1928 Res. Engr. in charge of 60 miles of grade and drainage structures, 9 large bridges and 35 miles of concrete and asphalt paving in Fughes and Seminole Counties, and since

May 1929 Asst. Engr., at present rewriting state standard specifications. *TT 6.5: SP 0.3: P 6.2: RC 5: D 0.5.—TT 12.5: SP 0.4: P 12.1: RC 5.8: D 0.5.* Refers to W. C. Burnham, R. V. Lindsey, A. R. Losh, E. R. Stapley, G. G. Toler.

1329

(11) JAMES, WARREN BENAIHAH, 130 West Valley Boulevard, San Gabriel, Cal. (Age 39. Born Northfield, Minn.) 1914 B. S. in Gen. Sci., Pomona (Cal.) Coll. 1916 B. C. E., Univ. of Mich. *TT 4: P 4.*—June to Sept. 1916 Asst. in surveying, summer camp, Univ. of Michigan, also in charge of camp lighting and water plant. *TT 0.1: SP 0.1.*—Sept. to Dec. 1916 Asst. Engr., for Contr., on construction of 4th lock, Sault Ste. Marie, Mich., lines, grades, in charge of steel bending gang, building forms, etc. *TT 0.2: SP 0.2.*—Dec. 1916 to Dec. 1917 and March 1919 to Oct. 1922 with Bridge Dept., Michigan Central R. R., as Bridge Inspector on construction of five concrete and steel grade separation bridges in Detroit, and (after March 1919) on field inspection of deep foundations, River Rouge bascule bridge, caissons, tunnels under tracks, etc., later in office designing steel and concrete structures. *TT 3.5: SP 1: P 2.5: D 2.5.*—Dec. 1917 to Feb. 1919 with U. S. Naval Reserve Force, R. R. Battery No. 1, overseas in charge of pointing 23-mile gun, indirect fire; work included surveying, solar and stellar observations and calculations. *TT 0.9: SP 0.3: P 0.6: RC 0.6.*—Oct. 1922 to Jan. 1923 not on engineering work.—Jan. 1923 to Aug. 1924 and June to Sept. 1926 with Union Oil Co. of California as Squad Leader, Eng. Dept., on structural design of roof trusses, buildings, walls, tanks, bridges and wharves, and (after June 1926) on fire protection. *TT 2: P 2: RC 1.7: D 2.*—Aug. 1924 to June 1926 with Osborne & Jessup, Cons. Engrs., Los Angeles, Cal. as Draftsman on streets, sewers, storm drains and lights. *TT 1: SP 0.9: P 0.1: D 0.1.*—Sept. 1926 to date with California State Div. of Highways, Bridge Dept., on design of and Res. Engr. on concrete bridges and wood structures, and later Asst. to Constr. Engr., Bridges, Southern Sec., in responsible charge (in absence of Constr. Engr.). *TT 3.2: P 3.2: RC 1.7: D 1.1.—TT 14.9: SP 2.5: P 12.4: RC 4: D 5.7.* Refers to J. E. Bebb, V. A. Endersby, W. C. Hogoboom, W. E. Jessup, F. W. Karge, H. Z. Osborne, R. J. Reed.

1330

(1) JIMENEZ, EMILIO SALVADOR, P. O. Box 3352, Santurce, Porto Rico. (Age 47. Born Torrox, Spain.) 1904 M. E., Federal Pol. School, Zurich, Switzerland. *TT 4: P 4.*—Jan. 1906–Dec. 1907 with J. G. White & Co., Engrs. and Contrs., New York City, until Dec. 1906 as Draftsman, Rodman, Chairman, Levelman and Transitman, then Engr., Comerio Falls development on construction of tunnels, power plant, sub-station and high-tension transmission and penstock lines. *TT 1.3: SP 0.8: P 0.5: RC 0.5.*—Jan. 1908 to April 1920 in private practice as Engr. and Contr. at San Juan, Porto Rico, until May 1911 as member of firm, Cartagena and Jimenez, then of firm, Jimenez, Ribot and Co., and after 1914 by himself, engaged as follows: Jan. 1908 to May 1911 directed erection of high-tension transmission line (20 km.) across swamps from Bayamon to San Juan, made surveys, etc.; May 1911 to June 1914 designed and built various buildings, including San Juan Terminal Station (reinforced concrete, \$125 000) of American R. R. of Porto Rico, structural steel freight warehouses (\$16 000) and Aguadilla Station (\$20 000); after July 1914 designed and constructed various buildings and structures for Am. R. R. Co., including Martin Pena and Anasco Stations (about \$10 000 each), also a structural steel building (\$40 000) and a residence (\$50 000). *TT 12.1: P 12.1: RC 12.1: D 12.1.*—May 1920 to date Gen. Mgr. and member of Board of Directors, American R. R. Co. of Porto Rico, being final authority on civil and mechanical engineering projects. *TT 9.4: P 9.4: RC 9.4.—TT 26.8: SP 0.8: P 26: RC 22: D 12.1.* Refers to M. V. Domenech, R. A. Gonzalez, A. S. Lucchetti-Otero, A. Rodriguez, E. Totti y Torres, C. del Valle Zeno.

1331

(13) JOHNSON, PHILIP ELLSWORTH, Hotel Roosevelt, San Francisco, Cal. (Age 28. Born Acampo, Cal.) 1919–1921 student, Coll. of Civ. Eng., Univ. of Cal. *TT 1: P 1.*—Aug. 1918 to April 1919 Rodman, Sacramento Div., Southern Pacific Co. *TT 0.4: SP 0.4.*—May to Aug. 1919 Rodman, and May 1921 to June 1922 Rodman to Asst. Res. Engr., California Highway Comm., after May 1921 in Div. II, in charge, under Supt., of minor line and grade changes, staking out, etc., heavy grading, mountain district. *TT 0.7: SP 0.7.*—July to Dec. 1922 Instrumentman, Nevada Highway Dept., on location surveys. *TT 0.5: P 0.5.*—Jan. 1923 to April 1927 with Southern Pacific Co., until Oct. 1923 as Instrumentman and Field Draftsman, Sacramento Div., on field and office work for industrial tracks, curve realignment, line and grade changes, drainage study, etc., then Asst. Engr., being First Asst. to Res. Engr., in charge of field work and contractor's operations on part of double tracking (45 miles) over Sierra Nevada, involving complete realignment, heavy rock grading, 7 tunnels, 3 bridges over 300 ft. long (1½ years) and on general maintenance and special work, such as reopening 700-ft. timber-lined tunnel, broadgauging 14-mile Truckee-Tahoe Branch, involving realignment, grading, reconstructing 14 bridges, new yard facilities.

TT 4.3: P 4.3: RC 2: D 1.—May 1927 to May 1928 in private practice in Central America, on location and construction of $4\frac{1}{2}$ miles narrow-gauge line, 3 miles 8-in. water-supply line design, layout and installation of sewerage system, etc. **TT 1: P 1: RC 1: D 0.5.**—July 1928 to July 1929 Instrumentman, Chf. of Party and Res. Engr., Div. of Highways, Dist. V. California Dept. of Public Works, San Luis Obispo, Cal., on location, stakeout and Res. on contract involving culverts, retaining wall, grading, macadam surfacing, etc. **TT 1: P 1: RC 0.7.**—Aug. 1929 to date Engr.-Salesman, Soule' Steel Co., San Francisco, Cal., on design and Sales Engr. service. **TT 0.3: P 0.3: RC 0.3: D 0.3.**—**TT 9.2: SP 1.1: P 8.1: RC 4: D 1.8.** Refers to J. Q. Barlow, H. R. Church, C. Maughmer, L. Pope, 3d, W. F. Turner, R. L. Wing.

1332

(3) JOHNSON, ROBERT MILTON, 109 North Genesee St., Utica, N. Y. (Age 35. Born Putnam, Ala.) 1929 B. S. in Civ. Eng., Univ. of Fla. **TT 4: P 4.**—July 1917 to Dec. 1921 with U. S. Marine Corps, until Aug. 1917 as 2d Lieut. (Reserve and Regular), then 1st Lieut. (Temp.), and after July 1918 Capt.; assignments included Commander, Marine Detachment, U. S. S. *Wyoming*, and Ordnance Officer, Naval Station, Guam, etc. **TT 4.1: SP 0.3: P 3.8: RC 2.2: D 2.2.**—Dec. 1922 to June 1924 Field Engr. and Office Draftsman, and Oct. to Dec. 1925 Field Engr., Technical Advisory Corporation, New York City, collecting and compiling data and drawing maps and forms for zoning and city planning and (1925) collecting and compiling data for zoning ordinance for Perth Amboy, N. J. **TT 1: SP 0.7: P 0.3: RC 0.3.**—June 1924 to June 1925 (summer school and evening classes) student, George Washington Univ., Washington, D. C.—Jan. to Aug. 1926 Title and Map Draftsman, Title Co. of Philadelphia, plotting and tracing maps. **TT 0.3: SP 0.3.**—Sept. 1926 to May 1929 Student, Univ. of Florida.—Sept. 1929 to date Jun. Asst. Civ. Engr., New York State Dept. of Public Works, Div. of Highways, Dist. No. 2, being Transitman and Asst. Chf. of Party on surveys, computations, design, etc. **TT 0.1: SP 0.1.**—**TT 9.5: SP 1.4: P 8.1: RC 2.5: D 2.2.** Refers to G. E. Barnes, C. C. Brown, E. P. Goodrich, B. W. Marsh, P. L. Reed.

1333

(1) KAUFMAN, LOUIS MANDELL, 212 East Fifteenth St., New York City. (Age 37. Born Bessarabia, Russia.) 1916 B. S. in Civ. Eng., Cooper Union. **TT 4: P 4.**—1915 to 1916 Draftsman with Wegmann & Hillberg, New York City, on dams.—1916 to 1917 Inspector of Constr., Board of Transportation, New York City, on subways and tunnels. **TT 1.2: P 1.2.**—1917 to 1919 Detailer and Designer, New York Central R. R. Co., New York City, on bridges, culverts, roundhouses, etc. **TT 1.7: P 1.7.**—1919 to 1922 Structural and Architectural Designer, United Gas & Elec. Eng. Corporation, New York City, in charge on power and gas plants, etc. **TT 2: P 2: RC 2: D 2.**—1922 to date in private practice of architecture and engineering, New York City, office buildings, garages, apartment houses, etc.; designed two 5-story apartment buildings and five 4-story buildings in Mt. Vernon, N. Y., for Zibelli Bros., and designed and supervised International Union Bank, a 5-story office building, a 5-story apartment building, etc., in New York City. **TT 7: P 7: RC 7: D 7.**—**TT 15.9: P 15.9: RC 9: D 9.** Refers to W. N. Hazen, J. E. Porter, Z. H. Sikes, W. L. Unger, H. T. Welty.

1334

(8) KAY, THAD ALEXANDER (THAD A KUCHARSKI), 7050 North Paulina St., Chicago, Ill. (Age 35. Born South Bend, Ind.) 1917 B. S. C. E., and 1922 C. E., Purdue Univ. **TT 4: P 4.**—July 1917 to May 1918 Asst. Land Accountant, Grand Trunk Ry., Detroit, Mich., engineering, accounting and valuation. **TT 0.8: P 0.8.**—Sept. 1919 to Feb. 1923 Asst. Engr., Illinois Div. of Waterways, Chicago, Ill., on design of locks and dams, surveys, hydraulics, water-power development. **TT 2.9: SP 0.5: P 2.4.**—Feb. 1923 to Sept. 1924 Designer, Illinois Central R. R., Chicago, on design, investigations, reports on terminal work. **TT 1.6: P 1.6.**—Sept. 1924 to April 1928 Engr., Bureau of Design, Board of Local Improvements, Chicago, on design of viaducts and bridges, in charge of utility work. **TT 3.7: P 3.7: RC 2: D 2.**—May 1928 to date Designer, at Chicago, until March 1929 with L. F. Harza, Cons. Engr., on design of dams and power houses, hydro-electric engineering, then with The Branson System, Inc., in charge of and responsible for design of reinforced concrete buildings, July to Aug. 1929 with Pearce, Greeley & Hanson, on design of sewage-disposal plants, and since Aug. 1929 with Freyn Eng. Co., on design of steel mills. **TT 1.4: P 1.4: RC 1.3: D 0.3.**—**TT 14.4: SP 0.5: P 13.9: RC 3.3: D 2.3.** Refers to F. E. Brown, L. D. Cornish, A. Engh, G. Jeppesen, T. Pettersen, A. Smith, H. van Zandt.

1335

(5) KING, WILLARD CHARLES, 1918 Eye St. N. W., Washington, D. C. Graduating student awarded Illinois Section prize. (Age 21. Born Chicago, Ill.) 1929 B. S., Univ. of Ill. **TT 4: P 4.**—June 1924 to Sept. 1925 Belt Inspector, Western Union Telegraph Co.,

Chicago, Ill. *TT 0.6: SP 0.6.*—Summer 1928 Laborer, Wells Brothers' Construction Co., Chicago.—At present Jun. Engr., Valuation Dept., Interstate Commerce Comm., Washington, D. C.—*TT 4.6: SP 0.6: P 4.* Refers to W. C. Huntington, M. S. Ketchum, W. D. Pence, C. L. Post, J. F. Seifried.

1336

(2) **KLEINERT, ALBERT EMANUEL, Jr.**, 115 Dunster Rd., Jamaica Plain, Boston, Mass. (Age 38. Born Brooklyn, N. Y.) 1916 S. B., Mass. Inst. Tech. *TT 4: P 4.*—Aug. 1916 to Feb. 1918 Chf. Clerk, Works Mgr.'s Office on inspection of fabricated steel, and Feb. 1920 to Feb. 1921 Structural Detailer, New England Structural Co. *TT 1.9: SP 0.5: P 1.4.*—Feb. 1918 to Feb. 1920 Detailing Engr., Holtzer-Cabot Elec. Co. *TT 1: SP 1.*—April 1921 to April 1922 with Frederick O. Lewis, Archt., White Plains, N. Y., on design of structural steel and reinforced concrete structures, estimates, surveys, etc. *TT 0.8: SP 0.3: P 0.5: D 0.2.*—April 1922 to April 1929 Asst. Civ. Engr. and Asst. Structural Engr., Dept. of Public Works, Commonwealth of Massachusetts, on quantity surveys, computations, designing, checking design and estimating for steel and reinforced concrete bridges. *TT 6.5: SP 0.5: P 6: RC 2: D 5.*—April 1929 to date Asst. Engr. with Ernest W. Wigglin, Cons. Engr., New Haven, Conn., on design of bridges. *TT 0.6: P 0.6: RC 0.6: D 0.6.*—*TT 14.8: SP 2.3: P 12.5: RC 2.6: D 5.8.* Refers to W. G. Addis, A. B. Edwards, G. E. Harkness, J. C. Moses, E. W. Wigglin.

1337

(1) **KURTOSSY, ROGER GABRIEL**, 2989 Marlon Ave., New York City. (Age 25. Born Paris, France.) 1928 B. S. in Civ. Eng., N. Y. Univ. *TT 4: P 4.* Refers to H. E. Breed, A. Haring, E. G. Hooper, C. T. Schwarze, D. S. Trowbridge.

1338

(13) **LAUENSTEIN, ROBERT FREDERICK**, 1611 Central Ave., Alameda, Cal. (Age 29. Born Alameda, Cal.) 1923 B. S. in Civ. Eng., Univ. of Cal. *TT 4: P 4.*—May 1923 to Dec. 1924 Chainman, Instrumentman, etc., Pacific Gas & Elec. Co., Pitt River No. 3 hydroelectric development, survey work. *TT 0.3: SP 0.3.*—Feb. to March 1924 Structural Designer and Detailer, V. H. Carter, designing and detailing structural steel and timber roof trusses. *TT 0.1: SP 0.1.*—March to June 1924 Office Asst., City Engr.'s Office, Alameda, Cal., drafting, checking designs, some surveying. *TT 0.1: SP 0.1.*—June to Sept. 1924 and July 1925 to June 1929 Asst. Engr., East Bay Municipal Utility Dist., Oakland, Cal., on water-supply computations, diagrams and studies and (after July 1925) on construction of Mokelumne River Project for water supply, 2½ years on aqueduct, Central Div., on surveying, computations, estimates, concrete inspection, proportioning and detailing on structures, and 1½ years on 360-ft. concrete dam, Eastern Div., inspecting concrete, steel foundation, and general construction, being in responsible charge (1 year) of preparations for placing concrete, cleanup, foundation, drains, steel, etc. *TT 4.2: P 4.2: RC 2.*—Sept. to Dec. 1924 Inspector, Yosemite Valley R. R., inspecting concrete and corrugated iron culvert. *TT 0.3: P 0.3.*—Dec. 1924 to July 1925 and June 1929 to date Asst. Engr. with Chas. H. Lee, Cons. Hydr. Engr., San Francisco, Cal., on hydrographic and hydraulic computations, studies and estimates for drainage, water supply and power and concrete designs for estimates. *TT 1: P 1: D 0.1.*—*TT 10: SP 0.5: P 9.5: RC 2: D 0.1.* Refers to C. E. Grunsky, Jr., S. T. Harding, C. E. Hickok, C. H. Lee, J. S. Longwell, J. Munn, J. Newman, I. C. Steele.

1339

(15) **LeSUEUR, SAMUEL JEFFERSON**, 2010 LaBranch St., Houston, Tex. (Age 39. Born Austin, Tex.) March 1913 to Jan. 1914 Rodman and Instrumentman, Stone & Webster Eng. Corporation, on railway work. *TT 0.5: SP 0.5.*—Sept. 1915 to Sept. 1917 and Oct. 1919 to Aug. 1926 with International & Great Northern Ry. (Missouri Pacific Ry.), as follows: Sept. 1915 to Sept. 1917 Instrumentman; Oct. 1919 to May 1920 Asst. Div. Engr., at Mart, Tex., on maintenance and construction; May 1920 to Aug. 1924 Asst. Engr., Chf. Engr.'s office, Palestine, Tex., on maintenance, construction and valuation; Aug. 1924 to April 1926 Asst. Dist. Engr., San Antonio, Tex., on maintenance and construction; after April 1926 Engr.-Roadmaster, Mart, Tex. *TT 8.2: SP 1: P 7.2: RC 7.2: D 6.9.*—Sept. 1917 to July 1919 with 23d U. S. Army Engrs.—Aug. to Oct. 1919 Asst. Engr. with County Engr., Mexia, Limestone County, Tex., on preliminary and location surveys for highways. *TT 0.2: P 0.2: RC 0.2: D 0.2.*—Aug. 1926 to Feb. 1927 Div. Engr., San Benito & Rio Grande Valley R. R. and Gulf Coast Lines, San Benito, Tex., on maintenance and construction. *TT 0.5: P 0.5: RC 0.5: D 0.5.*—Feb. 1927 to April 1928 Asst. Engr., Missouri Pacific Lines, at Houston, Tex., on maintenance, construction and valuation. *TT 1.2: P 1.2: RC 1.2: D 1.2.*—April 1928 to date Field Engr. with Robert J. Cummins, Cons. Engr., Houston, on surveys, inspections, appraisals, etc., construction of wharves, docks, buildings, etc. *TT 1.6: P 1.6: RC 1.6: D 1.6.*—*TT 12: SP 1.5: P 10.5: RC 10.5: D 10.2.* Refers to T. S. Bond, R. J. Cummins, C. S. Kirkpatrick, R. Owen, F. S. Schwinn, R. C. Stokes.

1340

(5) LOEHLER, JOHN GUSTAV, 7600 Alaska Ave. N. W., Washington, D. C. (Age 27. Born Washington, D. C.) 1924 B. S. in Civ. Eng., Lafayette Coll. 1926 M. S. in Eng., George Washington Univ. *TT 4: P 4.*—Sept. 1924 to June 1925 (nights) taught Junior Structures, George Washington Univ.—June 1924 to date Cons. Engr., G. G. Loehler Co., Inc., prepared and had charge of execution of design of office buildings, clubs, garages, apartment buildings, churches, stores, etc. (detailed list given in application). *TT 5.3: P 5.3: RC 5.3: D 5.3.*—*TT 9.3: P 9.3: RC 5.3: D 5.3.* Refers to G. E. Clark, F. O. Dufour, O. B. French, J. R. Lapham, H. Miller, J. L. Nagle, J. W. Oehmann.

1341

(15) McBRADY, ALPHONSUS PAUL, 116 Oak Pl., Houston, Tex. (Age 43. Born Graceville, Minn.) May to Aug. 1906 Rodman, Minneapolis, St. Paul & Sault Ste. Marie Ry. *TT 0.2: SP 0.2.*—Sept. 1906 to Dec. 1909 Rodman, Chainman and Instrumentman, Chicago, Milwaukee & St. Paul Ry. *TT 1.9: SP 1.5: P 0.4.*—Jan. 1910 to Sept. 1911 Chf. of Party on construction, Twin Falls-North Side Land & Water Co., Wendell, Idaho. *TT 1.7: P 1.7: RC 1.7.*—Nov. 1911 to Oct. 1914 Instrumentman on location and Res. Engr., Stone & Webster Eng. Corporation, at Ft. Worth, Tex. *TT 2.9: P 2.9: RC 2.9: D 0.5.*—Dec. 1914 to March 1915 Transitman, Head of Inventory Party on valuation, Texas Pacific Ry. *TT 0.3: P 0.3: RC 0.3.*—May 1916 to Nov. 1917 Deputy County Surveyor, Dawson County, Mont., in charge of road and bridge construction. *TT 1.5: P 1.5: RC 1.5: D 0.5.*—Nov. 1917 to Aug. 1919 Private, Co. G, 23d U. S. Engrs., including 4 months as A. E. F. Student at National Univ., Dublin, Ireland.—Sept. 1919 to Nov. 1920 and 1921 County Surveyor in charge of road and bridge construction, McCone County, and (1921) Garfield County, Mont. *TT 2.1: P 2.1: RC 2.1: D 1.*—Feb. 1922 to Feb. 1923 Project and Locating Engr., Missouri State Highway. *TT 1: P 1: RC 1: D 0.5.*—Feb. 1923 to date Engr. and Gen. Foreman on dock and building construction, Houston, Tex. *TT 6.8: P 6.8: RC 6.8: D 1.5.*—*TT 18.4: SP 1.7: P 16.7: RC 16.3: D 4.* Refers to R. J. Cummins, H. P. Mobberly, C. U. Smith, J. B. Townsend, W. M. Wilson.

1342

(10) McCAMY, ROY LEE, 631 West Peachtree St., Atlanta, Ga. (Age 26. Born Scottsboro, Ala.) 1929 B. S. in C. E., Ga. School Tech. *TT 4: P 4.*—Summer 1928 Timekeeper, Empire Constr. Co.—Sept. 1928 to date Draftsman, Eng. Dept., Georgia Power Co. *TT 0.3: SP 0.3.*—*TT 4.8: SP 0.3: P 4.* Refers to R. P. Black, W. C. Cram, Jr., F. C. Snow.

1343

(15) McREE, FITZHUGH LEE, 2424 Twenty-Second St., Lubbock, Tex. (Age 31. Born Lillac, Tex.) 1924 B. S. in C. E., Univ. of Tex. *TT 4: P 4.*—June–Nov. 1924 Concrete Inspector on Texas Memorial Stadium, and Sept. 1926 to June 1927 Instructor in Civ. Eng. Univ. of Texas. *TT 1: SP 0.2: P 0.8.*—Jan. 1925 to Sept. 1926 Concrete Inspector, Draftsman and Asst. Engr., summer 1927 Office Engr., Res. Engr.'s office, in charge of plans for highway construction, summer 1928 Res. Engr. on concrete bridge construction, and summer 1929 Asst. Engr. on estimates and data for highway plans, all for Texas Highway Dept. *TT 1.6: SP 0.7: P 0.9: RC 0.9.*—Sept. 1927 to June 1928 Instructor in, and Sept. 1928 to date Asst. Prof. of, Civ. Eng., Texas Technological Coll. *TT 1.7: P 1.7: RC 0.9.*—*TT 8.8: SP 0.9: P 7.4: RC 1.9.* Refers to O. V. Adams, E. C. H. Bantel, J. A. Focht, A. T. Granger, J. H. Murdough, T. U. Taylor, M. C. Welborn, G. G. Wickline.

1344

(15) MENTZ, HENRY ALVAN, Citizens Nat'l Bank Bldg., Hammond, La. (Age 45. Born Morgan City, La.) 1904 special course in Eng., Tulane Univ. of Louisiana.—1905 to 1907 Asst., Lines and Cables Dept., New Orleans (La.) Ry. & Light Co., checking construction and on design. *TT 2: P 2: RC 2.*—1908 to 1909 with Lines and Cables Dept., Philadelphia (Pa.) Rapid Transit Co., on design. *TT 0.2: P 0.2: D 0.2.*—1909 to 1910 Asst. Engr., Elec. Engr.'s office, Baltimore & Ohio R. R. Co., Baltimore, Md., supervising work and tests and on design. *TT 2: P 2: RC 2: D 2.*—1911 with Southern Pacific Co., San Francisco, Cal., in office of Engr. of Elec. Traction. *TT 1: P 1: D 1.*—1912 to 1914 with Solomon-Norcross Co., Civ. and Cons. Engrs., Atlanta, Ga., as Asst. Engr. on water-works, sewerage and lighting plants, and Engr.-in-Chg. on supervision of construction in Florida. *TT 1.7: P 1.7: RC 1.7: D 1.7.*—1914–1924 with Xavier A. Kramer, Magnolia, Miss., on municipal engineering and construction of water, lighting, sewerage, highway and paving projects, in charge of all engineering and on design. *TT 10.7: P 10.7: RC 10.7: D 10.7.*—1925 to date in private practice as Henry A. Mentz and Henry A. Mentz & Co., Engrs., preparing physical and financial reports, plans and specifications for water-works, water-supply, fire-defense and protection systems, sewer systems, sewage-disposal works, storm drainage facilities, paving and highway work (total over \$5 000 000); firm at present, as Cons. Engrs.

for Macomb, Miss., is completing improvements consisting of water-works, sewerage, sewage-disposal, paving and storm drainage (over \$750 000), has also been retained as Cons. Engrs. by Jefferson East Bank Water Dist. No. 1, Jefferson Parish, La. *TT 4.9: P 4.9: RC 4.9: D 4.9.—TT 26.5: P 26.5: RC 21.3: D 20.5.* Refers to E. F. Delery, H. C. Dietzer, D. M. Forester, J. P. Lawlor, O. K. Olsen, G. R. Solomon.

1345

(10) **MIZE, THERON NEAL**, 5061 Cabanne Ave., St. Louis, Mo. (Age 40. Born in Banks County, Ga.) Sept. 1906 to April 1910 Student, Georgia School of Technology and Univ. of Georgia. *TT 1.5: P 1.5.*—July 1912 to Aug. 1913 Rodman and Concrete Inspector, Northern Contr. Co., Tullulah Falls, Ga. *TT 1: SP 0.3: P 0.7.*—Oct. 1913 to July 1916 Transitman, U. S. Forest Service, Washington, D. C., surveys and office computation. *TT 2.8: P 2.8.*—July 1916 to April 1919 Instrumentman and Constr. Supt., Chile Exploration Co., Chuquicamata, Chile, on mine and transmission-line surveys and construction of residences, living quarters, school, church, and pipe-line (94 km. long). *TT 2.8: P 2.8: RC 1.6.*—Sept. 1919 to Oct. 1920 Asst. to Constr. Engr., Appleby Iron Co., Scunthorpe, England, supervising construction of large steel plant. *TT 1.1: P 1.1: RC 0.5.*—Nov. 1920 to Dec. 1921 Field Supt. of Constr., Mexican Eagle Oil Co., Minatitlan, Mexico, enlarging oil refinery. *TT 1.2: P 1.2.*—Aug. 1925 to Nov. 1926 with Balfour, Beatty & Co., Ltd., Ft. William, Scotland, on hydro-electric development, being Field Supt., and Div. Engr. on tunnel excavation (7 miles). *TT 1.2: P 1.2: RC 0.7.*—Jan. 1928 to June 1929 Field Engr., Apure-Venezuela Petroleum Corporation, Valencia, Venezuela, on surveys; part of time on non-professional work. *TT 0.8: P 0.8.—TT 12.4: SP 0.3: P 12.1: RC 2.8.* Refers to J. C. Balcomb, G. H. Bayles, H. Harvey, T. Human, Jr., J. H. Quimby.

1346

(8) **MORGAN, CHARLES EDWARD**, Lebanon, Ill. (Age 38. Born Pearl, Ill.) 1925 B. S. in C. E., Washington Univ., University City, Mo. *TT 4: P 4.*—1910 to 1913 on various construction, as Laborer, Foreman, etc., Keokuk Dam, Anadorko (Okla.) Dam, etc. *TT 1.5: SP 1.5.*—Nov. 1920 to March 1921 Rodman, St. Louis & San Francisco R. R. Co., surveys, inspections, etc. *TT 0.2: SP 0.2.*—June to Oct. 1925 Contr., grading and concrete work. *TT 0.1: SP 0.1.*—Dec. 1925 to May 1926 Instrumentman with Carr & McFadden, Inc., West Palm Beach, Fla., subdivision and municipal work. *TT 0.2: SP 0.2.*—Aug. 1926 to date with Illinois Div. of Highways about 9 months as Jun. Highway Engr. on plans and design, then Res. Engr. and Project Engr., at present in charge of 8-mile road and bridge contract. *TT 3.2: P 3.2: RC 2.5.—TT 9.2: SP 2: P 7.2: RC 2.5.* Refers to W. C. E. Becker, A. A. A. Coleman, C. M. Hathaway, C. M. Slaymaker, E. O. Sweetser, J. L. Van Ornum.

1347

(1) **MORGAN, WALLACE McDUFFIE**, Winfield Scott Hotel, Elizabeth, N. J. (Age 22. Born Apalachicola, Fla.) 1929 B. S. in C. E., Ala. Pol. Inst. *TT 4: P 4.*—Summers 1922–1925 Rodman, and Summers 1926 and 1928 Transitman on work for State Highway Dept. of Georgia.—Summer 1927 Draftsman on relocation of Louisville & Nashville R. R. between Etawa and Copper Hill, Tenn.—*TT 4: P 4.* Refers to C. A. Baughman, J. A. C. Callan.

1348

(10) **NOE, THOMAS PASTEUR, Jr.**, 214 Henderson St., Chapel Hill, N. C. (Age 24. Born Beaufort, N. C.) B. S. in Applied Sci., Univ. of the South. 1929 B. S. in Civ. Eng., Univ. of N. C. *TT 4: P 4.*—Sept. 1927 to Sept. 1928 Operator and Engr. in charge of tests, Univ. Consolidated Service Plants (Chapel Hill Water Treatment Plant), responsible for operation of plant, water testing and treatment.—June 1929 to date Jun. Engr., U. S. Geological Survey, Dept. of Interior, acting as Asst. to Res. Engr., constructing water-recording stations. *TT 0.3: SP 0.3.—TT 4.3: SP 0.3: P 4.* Refers to G. M. Braune, E. D. Burchard, T. F. Hickerson, H. F. Janda.

1349

(3) **OELKERS, CARL LUDWIG**, 39 Sweeney Parkway, North Tonawanda, N. Y. (Age 41. Born North Tonawanda, N. Y.) 1912 B. S. in Eng., Univ. of Mich. *TT 4: P 4.*—Aug. to Oct. 1906 Laborer and Inspector on water bound macadam paving transit road, Lockport to Millersport, summers 1909 and 1910 Provisional Chainman, and Sept. to Dec. 1913 Provisional Rodman, New York State Highway Dept. *TT 0.3: SP 0.3.*—July to Dec. 1912 Timekeeper and Cost Clerk, Rock Asphalt Co., Buffalo, N. Y., on telephone subway construction. *TT 0.2: SP 0.2.*—April to Sept. 1913 Asst. Supt., L. H. Gipp Constr. Co., Buffalo, on paving construction. *TT 0.2: SP 0.2.*—Jan. 1914 to Jan. 1915 Draftsman, Ontario Power Co., Salmon River Power Development, Niagara Falls, Ont., being Recorder and Instrumentman and on field party laying out and constructing new highways at site of dam and power house, Redfield, N. Y. *TT 0.5: SP 0.5.*—Jan. 1915 to date City Engr.

North Tonawanda, N. Y., responsible for preliminaries, design and supervision of construction; Eng. Advisor for City Boards; also outside consulting practice and subdivision work. *TT 14.9: P 14.9: RC 6: D 5.—TT 20.1: SP 1.2: P 18.9: RC 6: D 5.* Refers to R. W. Cady, J. T. Campbell, W. T. Huber, H. E. Riexinger, G. F. Unger.

1350

(9) OTTER, JOHN VERNON, 2253 Indianola Ave., Columbus, Ohio. (Age 24. Born Moscow, Idaho.) 1929 B. S. in C. E., Univ. of Idaho. *TT 4: P 4.* Refers to I. C. Crawford, J. A. Murphy.

1351

(4) PARKER, JACOB SILAS, Jr., 909 Pennsylvania Bldg., Philadelphia, Pa. (Age 26. Born Salisbury, N. C.) 1926 C. E., Univ. of Va. *TT 4: P 4.*—Summer 1921 Rodman, City of Portsmouth, Va.—Summer 1924 Chf. of Party, Norfolk County (Va.) Highway Comm., on surveys.—Summer 1925 and June to Aug. 1926 with Lee H. Williamson, Cons. Engr., Charlottesville, Va., as Chf. of Party and Designer on surveys for impounding dam and pipe lines, preliminary design of rock-fill dam and pipe lines, and supervision of construction of foundation for electric furnace, also design of 3-story concrete garage. *TT 0.1: P 0.1: RC 0.1: D 0.1.*—Aug. 1926 to date with Fuller & McClintock, New York and Philadelphia, until Sept. 1927 as Asst. Res. Engr. making sewerage studies for New Haven, Conn., Lancaster and New Castle, Pa.; work consisted of industrial surveys, sewage measurements, preliminary designs of relief sewers, storm-water regulators and conduits, pumping stations and treatment plants, supervising completion of grading and operation of treatment works at New Castle, including gas analyses, control of acid reaction of sludge, etc., also made cost studies for elimination of sanitary sewage from combined sewerage system of Lancaster; Sept. 1927 to Aug. 1928 Asst. Engr., Philadelphia office, on design of sewage-treatment works, sewers, storm-water regulators, etc., for Lancaster, Borough of Hanover, Laurelton State Village for Feeble Minded Women, and Ellis Coll., Newton Square, Pa.; valuation for East End & Susquehanna Sewer Companies of Sunbury, Pa., and hydraulic computations for Jacksonville (Fla.) Water Utilities Corporation; Aug. to Sept. 1928 Asst. Res. Engr. investigating new sewer system at Freeport, N. Y.; Sept. 1928 to Jan. 1929 Res. Engr. supervising construction of Ellis Coll. sewers and sewage-treatment works, Newton Square; since Jan. 1929 Asst. Engr., Philadelphia office, on design of sewage-treatment works, outfall sewers, storm-water regulators, etc., for Binghamton and Middletown, N. Y., and New Haven, Conn. *TT 3.2: P 3.2: RC 3: D 1.5.—TT 7.3: P 7.3: RC 3.1: D 1.6.* Refers to L. L. Campbell, F. G. Cunningham, C. A. Emerson, Jr., G. W. Fuller, E. G. Manahan, L. H. Williamson.

1352

(11) PARTIN, JOHN LEO, 3324 Drew St., Los Angeles, Cal. (Age 29. Born Lyons, Ga.) 1921 B. S., Emory Univ., Atlanta, Ga. 1925 B. S., Mass. Inst. Tech. *TT 4: P 4.*—Sept. 1925 to Feb. 1926 Asst. Field Engr., Solomon-Norcross, Cons. Engrs., Atlanta, Ga., general supervision, laying 27-in. cast-iron water main (12 miles). *TT 0.4: P 0.4: RC 0.4.*—March 1926 to date with County Surveyor's Dept., Drainage Div., Los Angeles County, 1½ years as Jun. Draftsman, drafting and computing, 1½ years Senior Draftsman, on estimates for preliminary investigations for drainage improvement districts, designing storm drains and field observations for storm water flows, and remainder of time Engr., Grade III, on design of storm drains, final estimating for contract bids, assisted in study for new method of computing rainfall run-off, organized system for observing and recording data on storm water flows in drainage systems, etc. *TT 3: SP 0.8: P 2.2: RC 0.6: D 0.5.—TT 7.4: SP 0.8: P 6.6: RC 1: D 0.5.* Refers to C. E. Arnold, N. Bostwick, F. F. Friend, R. L. Gregory, C. H. Reeves, H. F. Wiedeman.

1353

(1) PETERSON, MARTIN PETER, Vacuum Oil Co., Cairo, Egypt. (Age 37. Born Riga, Latvia.) 1925 B. S. in Civ. Eng., Univ. of Pa. *TT 4: P 4.*—Oct. 1908 to Sept. 1911 Apprentice, Beyer Machine Shop, Riga, Latvia, shop work and instructions in theory and practice of steam-engine and machinery construction.—Oct. 1911 to April 1915 Apprentice, Wannag Constr. Co., Riga, Latvia, on building construction and instructions in theory and design of buildings.—May to Dec. 1915 Machinist, Russian Navy, Engine-room on transport steamer.—Jan. 1916 to April 1917 Carpenter for contractors on construction of dwellings at Worcester, Mass.—May 1917 to April 1918 Carpenter-Millwright, American Steel & Wire Co., on construction and maintenance of plant.—May 1918 to Aug. 1925 Carpenter and Foreman with Chas. E. Clark, Bldr., Philadelphia, Pa., on erection of dwellings.—Sept. 1925 to April 1926 Draftsman and Designer, Gen. Elec. Co., Schenectady, N. Y., laying out and designing factory buildings. *TT 0.6: P 0.6: D 0.6.*—May 1926 to April 1928 Supt. of Constr., American Univ. of Cairo, Egypt, designing (except architectural features) and building of auditorium (1200 seats). *TT 2: P 2: RC 2: D 1.2.*—May 1928

to date Constr. Engr., Vacuum Oil Co., Cairo, designing and erecting structures and tanks for storage and distribution of lubricating and fuel oils. *TT 1.6: P 1.6: RC 1.6: D 1.6.*—*TT 8.2: P 8.2: RC 3.6: D 3.4.* Refers to H. C. Berry, E. T. Grandlienard, F. P. Witmer. (Applies in accordance with Sec. 1, Art. I, of the By-Laws.)

1354

(9) **PETTY, BENJAMIN HARRISON**, 632 Ferry St., Lafayette, Ind. (Age 41. Born in Hayes County, Nebr.) 1913 B. S. in C. E., Purdue Univ. *TT 4: P 4.*—1913 to 1915 with Morgan Eng. Co., Dayton, Ohio, 6 months as Instrumentman in charge of level and topography parties, then Computer on preliminary studies for flood prevention work in Miami River Valley. *TT 1: SP 1.*—1915 to 1920 with Miami Conservancy Dist., Dayton, until 1918 as Computer, 2 years on hydraulic investigations, including establishment of stream gauging and rainfall stations, current meter measurements and determination of roughness factors, and 6 months on computations of final estimates, some drafting for retaining dams, channel improvement, etc., then (2½ years) Office Engr. on construction of Taylorsville Dam (hydraulic fill, concrete, about \$2 000 000), in charge of field party on lines, grades, etc., also location of roads, railroad tracks, etc., prepared progress estimates, time charts, etc. *TT 3.8: SP 1.3: P 2.5.*—1920 to 1923 Instructor, School of Civ. Eng., 1923 to 1929 Asst. Prof., and 1929 to date Associate Prof., of Highway Eng., Purdue Univ.; since 1925 in charge of Annual Road School and Highway Dept. and highway extension work; summers 1921 and 1923 Asst. Engr., Indiana State Highway Comm., Indianapolis, Ind., in Greenfield Dist., on surveys, measuring gravel piles, etc., in Seymour Dist., New Albany, inspecting bituminous paving on Corydon and Paoli roads; summer 1922 assisting on highway extension work, demonstration earth road construction. *TT 9.2: P 9.2: RC 6.7.*—*TT 18: SP 2.3: P 15.7: RC 6.7.* Refers to W. P. Cottingham, O. N. Floyd, W. K. Hatt, A. H. Hinkle, I. E. Houk, H. S. Marshall, F. T. Sheets.

1355

(10) **PLAYER, FRANK ANTHONY**, 547 Moreland Ave. N. E., Atlanta, Ga. (Age 22. Born Chattanooga, Tenn.) 1929 B. S. in Civ. Eng., Ga. School Tech. *TT 4: P 4.*—Summer 1925 with F. E. Gollan, Atlanta, Ga., in fabricating shop and detail drafting on structural steel.—Summer 1926 with Ebersback Constr. Co., Tampa, Fla., subdivision and grading.—Summer 1927 with Sam N. Hodges Constr. Co., Atlanta, steel erection, concrete construction, power installation, etc.—Summer 1928 and June 1929 to date with Wallace Constr. Co., Atlanta, on highway and bridge construction. *TT 0.5: P 0.5: RC 0.5.*—*TT 4.5: P 4.5: RC 0.5.* Refers to R. P. Black, F. C. Snow.

1356

(5) **POHMER, ALBERT EDWARD**, Bradshaw, Md. (Age 31. Born Baltimore, Md.) 1916 graduated, Baltimore Pol. Inst.—July to Oct. 1916 with Chesapeake & Potomac Telephone Co., Baltimore, Md., as Draftsman on layouts, and Rodman on surveys for line location. *TT 0.2: SP 0.2.*—Nov. 1916 to May 1917 Transitman, Consolidated Gas & Elec. Co., Baltimore, on surveys for gas distribution and pole lines. *TT 0.2: SP 0.2.*—June 1917 to July 1918 Chf. of Party, until March 1918 with County Surveyor of Baltimore County, on property and drainage surveys, development layouts and road construction, then with Pennsylvania Water & Power Co., Baltimore, on high-tension transmission-line construction. *TT 0.5: P 0.5.*—July 1918 to date Asst. Engr. to J. Spence Howard, on property and subdivision surveys, grade establishments, sewer, road and small bridge design and construction, railroad and water-works construction, and Res. Engr. on street improvement. *TT 10.8: SP 0.5: P 10.3: RC 8: D 1.3.*—*TT 11.7: SP 1.4: P 10.3: RC 8: D 1.3.* Refers to W. H. H. Cullimore, 3d, G. E. Finck, J. S. Howard, J. C. Little, J. Shlessinger.

1357

(15) **RAMIREZ CERDA, ROBERTO**, San Juan de Letran 24-102, Mexico, D. F., Mexico. (Age 26. Born Mexico, Mexico.) Jan. 1918 to Nov. 1922 Student, Escuela de Ingenieros Mecanicos y Electricistas.—March to Oct. 1923 and April to Nov. 1925 Draftsman, Dept. of Public Works, Mexico, on estimates, city planning and tracings. *TT 1: SP 0.6: P 0.4.*—Dec. 1925 to date Draftsman, until June 1926 with Bridge Dept., Byrne Bros. Constr. Co., on tracings and estimates, then with National Irrigation Comm., River Mante Project, Mexico, mapping, estimates and tracings, and after Nov. 1926 with J. G. White Eng. Corporation S. en C., Mexico, on tracings and (since Jan. 1929) on machine and auxiliary structure design. *TT 3: SP 2.1: P 0.9: RC 0.9: D 0.9.*—*TT 4: SP 2.7: P 1.3: RC 0.9: D 0.9.* Refers to H. P. Bunger, J. Hinds, C. H. Howell, L. K. Maires, P. K. Schuyler, F. E. Weymouth.

1358

(15) **ROBERTS, LLOYD WILLIAM**, 1235 West Bell Ave., Houston, Tex. (Age 32. Born Concordia, Kans.) 1920 B. S. in C. E., Kans. State Agri. Coll. *TT 4: P 4.*—Feb. 1920 to March 1921 with Black & Veatch, Kansas City, Mo., instrument work and inspection on construction of sewage-disposal works, water-works and paving. *TT 0.6: SP 0.6.*—

April 1921 to Feb. 1922 Asst. County Engr., Madison County, Tex., instrument work and inspection on construction of grading and drainage structures on a Federal Aid project. *TT 0.4: SP 0.4.*—Feb. to May 1922 Checker, Texas State Highway Dept., Austin, Tex., on plans for Federal Aid project. *TT 0.1: SP 0.1.*—May 1922 to Jan. 1924 Asst. County Engr., Runnels County, Tex., on two 10-mile Federal Aid projects, had charge of construction of grading, drainage structures and gravel surfacing on one, and made surveys and plans for the other. *TT 1.7: P 1.7: RC 1.7: D 0.5.*—Jan. 1924 to Jan. 1927 Asst. County Engr., Jack County, Tex., 1½ years as Office Engr. in charge of plans of 100 miles of State and Federal Aid work in Jack and Young Counties and 1½ years Field Engr. in charge of construction of 17 miles of sledged stone base and 51 miles of asphalt macadam top. *TT 3: P 3: RC 3: D 1.5.*—Jan. 1927 to Jan. 1929 Project Engr., Harris County, Tex., supervising construction of concrete paving and various types of asphalt surfacing, supervising surveys and plans on 26 miles of Federal Aid work on State Highway No. 3, Harris County, Tex. *TT 2: P 2: RC 2.*—Jan. 1929 to date Asst. Res. Engr., Texas State Highway Dept., Harris County, completed the surveys and plans on the Federal Aid work, and at present has charge of construction of grading, drainage structures and concrete paving of 26 miles of State Highway No. 3, Harris County. *TT 0.8: P 0.8: RC 0.8.*—*TT 12.6: SP 1.1: P 11.5: RC 7.5: D 2.* Refers to J. M. Howe, G. R. Johnston, J. E. Pirie, A. J. Wise, E. C. Woodward.

1359

(13) ROTH, IRVING CARL, 1422 Fourteenth Ave., San Francisco, Cal. (Age 27. Born San Francisco, Cal.) 1924 C. E., Univ. of Cal. *TT 4: P 4.* 1923 to 1924 Experimental Mech. Engr. in charge of experimental plant construction, Shell Oil Co. refinery, Martinez, experimental work and data on corrosions of condenser tubes, stills, boilers, etc. *TT 0.8: SP 0.1: P 0.7: RC 0.3: D 0.3.* 1924 to date Cons. Engr., Roth Constr. Co., in direct charge of construction, outside supervision, estimates and designs and has had active control over all building crews on general contracts, including buildings, apartment houses, reconstruction of a warehouse, a mine wharf for Govt. at Ft. Scott, Cal., gasoline storage station at Crissy Field, Cal., etc. *TT 4.2: SP 0.7: P 3.5: RC 2: D 2.*—*TT 9: SP 0.8: P 8.2: RC 2.3: D 2.3.* Refers to O. W. Degen, C. Derleth, Jr., B. C. Gerwick, E. L. Soule.

1360

(1) RUBIN, REUBEN, 538 East Fifty-First St., Brooklyn, N. Y. (Age 32. Born Vilna, Poland.) 1921 B. S. in C. E., Cooper Union. *TT 4: P 4.*—April to Aug. 1920 Draftsman with J. F. Musselman, Cons. Engr., New York City, made plans of heating, lighting and ventilating systems for office buildings.—Aug. to Dec. 1920 Draftsman with Paul Chapman, Cons. Engr., New York City, detailing and tracing structural plans for theaters.—June 1921 to March 1923 Jun. Asst. Engr., Grade 2, New York State Highway Comm., Albany, N. Y., made plans and estimates and surveys for and inspected and supervised construction of concrete and bituminous macadam highways. *TT 1.5: SP 0.3: P 1.2: RC 0.4.*—March to May 1923 Draftsman, Elec. Bond & Share Co., New York City, traced and drew plans of hydro-electric plants. *TT 0.1: SP 0.1.*—May 1923 to May 1924 Structural Draftsman, Board of Transportation, New York City, made, designed and checked plans of steel and reinforced concrete railroad repair shops, train sheds, subways and elevated railroads, etc. *TT 1: P 1: D 0.5.*—May 1924 to April 1929 Asst. Squad Leader and Checker, New York Edison Co., New York City, made, designed and checked plans of steel and reinforced concrete structures, for alterations and additions to steam-generating power plants, sub-stations, transmission lines, warehouses and garages. *TT 4.9: P 4.9: RC 0.4: D 2.5.*—April 1929 to date Structural Engr., Honolulu Iron Works Co., New York City, designing, checking and estimating cost of construction, also approving contractors' drawings of sugar-factory buildings. *TT 0.7: P 0.7: RC 0.7: D 0.7.*—*TT 12.2: SP 0.4: P 11.8: RC 1.5: D 3.7.* Refers to T. R. Gallo-way, F. W. Riegger, R. L. Sands, L. Tarnopoll, W. F. Von Buehren.

1361

(8) SCHEIDENHELM, EDWARD LOUIS, Jr., 704 Lake Ave., Wilmette, Ill. (Age 22. Born Wilmette, Ill.) 1928 A. B., and 1929 C. E., Cornell Univ. *TT 4: P 4.*—July to Aug. 1925 Timekeeper and Material Clerk, and Aug. 1929 to date Asst. Estimator, Edward L. Scheidenhelm Co., Chicago, Ill. *TT 0.2: SP 0.2.*—*TT 4.2: SP 0.2: P 4.* Refers to F. A. Barnes, E. N. Burrows, A. F. Reichmann, F. W. Scheidenhelm, E. W. Schoder, L. C. Urquhart.

1362

(4) SCHMIDT, FREDERICK ADAM, 2116 West Venango St., Philadelphia, Pa. (Age 25. Born Philadelphia, Pa.) Sept. 1923–April 1924 Chainman, May–Dec. 1924 Rodman, Jan. 1925–Jan. 1927 Transitman and Feb. 1927 to date Second Asst. Surveyor, Bureau of Eng. and Surveys, Philadelphia, Pa. *TT 4.4: SP 1.7: P 2.7.* Refers to T. Buckley, E. J. Dauner, A. B. Engle, A. C. Patterson, A. G. Singer.

1363

(7) **SCHROEPFER, GEORGE JOHN**, 450 Fulton St., St. Paul, Minn. (Age 23. Born St. Paul, Minn.) 1928 B. S. C. E., Univ. of Minn. *TT 4: P 4.*—Sept. 1926 Head Chainman, Minnesota Highway Dept., on location.—Sept. 1926 to March 1928 Student Asst., Univ. of Minnesota.—March 1928 to date Asst. Engr., Metropolitan Drainage Comm., St. Paul, Minn., on a sewage-disposal project, including structural and hydraulic plant design, etc. *TT 1.7: P 1.7: RC 1.7: D 1.7.*—*TT 5.7: P 5.7: RC 1.7: D 1.7.* Refers to F. Bass, J. A. Childs, A. S. Cutler, O. M. Leland, J. I. Parcel, J. A. Wise.

1364

(10) **SCOTT, SILAS STEELE**, U. S. Q. Boat 1916, Rosedale, Miss. (Age 22. Born Avon, S. Dak.) 1929 B. E., Univ. of Miss. *TT 4: P 4.* Refers to J. H. Dorroh, G. B. Stone.

1365

(10) **STEMM, HOWARD JOHN**, Care, Georgia Power Co., Atlanta, Ga. (Age 26. Born Chicago, Ill.) 1929 B. S. in C. E., Ga. School Tech. *TT 4: P 4.*—Sept. 1925–Aug. 1926 Surveyor, Mississippi River Comm., St. Louis, Mo., topography, triangulation, hydrography computations, star observations, etc.—Sept. 1926 to date Draftsman, Georgia Power Co., Atlanta, surveying for power lines and construction, design for concrete and steel structures of Underground Distribution Dept. *TT 4: P 4.* Refers to R. P. Black, W. C. Cram, Jr., C. A. Smith, F. C. Snow.

1366

(15) **STRIEBER, ALTON LeROY**, 303 Frost Bldg., San Antonio, Tex. (Age 25. Born Yorktown, Tex.) 1927 B. S. in M. E., Tex. Agri. and Mech. Coll. *TT 4: P 4.*—Feb. to Dec. 1928 with S. H. Guldge, Seguin, Tex., as Draftsman and Inspector on state highway work. *TT 0.6: SP 0.1: P 0.5: RC 0.5.*—Dec. 1928 to date with Hawley & Freese, Cons. Civ. Engrs., San Antonio, Tex., as Draftsman on a sewage-disposal plant and Inspector on a flood control project. *TT 0.8: SP 0.1: P 0.7: RC 0.7.*—*TT 5.4: SP 0.2: P 5.2: RC 1.2.* Refers to S. W. Freese, J. B. Hawley, H. R. F. Helland, M. C. Nichols, A. H. Woolverton.

1367

(1) **STUDDERT, WILLIAM WALTON**, Apartado 1130, San Jose, Costa Rica. (Age 26. Born Washington, N. C.) 1920 to 1921 and 1924 to 1925 student in Civ. Eng., North Carolina State Coll. *TT 1: P 1.*—June 1921 to Sept. 1924 and June to Nov. 1925 Topographer, Levelman and Transitman and Chf. of Party, North Carolina Highway Comm. *TT 2.9: SP 1: P 1.9.*—Nov. 1925 to Aug. 1926 Res. Engr. on construction and Engr. on location of highways, Mexican National Comm. of Roads. *TT 0.7: P 0.7: RC 0.7.*—Aug. 1926 to Sept. 1928 and March to June 1929 Location Engr., Pennsylvania Dept. of Highways. *TT 2.4: P 2.4: D 2.4.*—Sept. 1928 to March 1929 Structural Steel Surveyor, buildings and bridges, Harris Structural Steel Co., New York City. *TT 0.5: P 0.5: RC 0.5.*—June 1929 to date Engr. of Location, Compania Constructora Latino-Americana, San Jose, Costa Rica, on highways. *TT 0.5: P 0.5: D 0.5.*—*TT 8: SP 1: P 7: RC 1.2: D 2.9.* Refers to H. Carrington, C. N. Conner, T. C. Frame, J. B. Pridgen, F. E. Schnépfé, P. K. Schuyler, C. M. Upham.

1368

(12) **SUTHERLAND, EDWARD LINN**, Owyhee, Ore. (Age 36. Born Central City, S. Dak.) 1921 B. S. in Civ. Eng., Mont. State Coll. *TT 4: P 4.*—Sept.–Dec. 1921 Inspector, and April 1922 to Feb. 1923 Res. Engr., Montana State Highway Comm., on supervision of gravel highway construction. *TT 1.1: P 1.1: RC 0.8.*—May 1923 to March 1924 Instrumentman and Chf. of Party, Richardson Constr. Co., Esparenza, Sonora, Mexico, 2 months supervised field work, then had charge of construction of 12 miles of gravel highway. *TT 0.8: SP 0.1: P 0.7: RC 0.7.*—May to Aug. 1925 Inspector and Asst. Res. Engr., Missouri State Highway Comm., construction inspection of concrete highway and concrete bridges. *TT 0.2: P 0.2.*—Dec. 1925 to date with U. S. Bureau of Reclamation, El Paso, Tex., Carlsbad, N. Mex., and Owyhee, Ore., about 4 months as Recorder of Surveys, 1½ years Senior Eng. Draftsman, 2 1/10 years Jun. Engr., and remainder of time Asst. Engr., drafting, computing, estimating, etc. *TT 3.8: SP 0.2: P 3.6.*—*TT 9.9: SP 0.3: P 9.6: RC 1.5.* Refers to F. A. Banks, C. A. Betts, F. M. Brown, J. T. Carmichael, A. N. George, E. L. Grant, R. A. Hill, L. M. Lawson, R. D. Rader, W. B. Vestal.

1369

(10) **TAYLOR, WYLLYS HARD**, Care, Slater Mfg. Co., Slater, S. C. (Age 45. Born Pendleton, S. C.) 1905 B. S. in C. E., Clemson Coll., S. C. *TT 4: P 4.*—Summers 1904 and 1905 Rodman, Union & Glenn Springs Ry. and Atlantic, Birmingham & Atlanta Ry. *TT 0.1: SP 0.1.*—Oct. to Dec. 1905 Leveler, Southern Ry. *TT 0.1: SP 0.1.*—Dec. 1905 to Oct. 1906 Asst. Res. Engr., South & Western Ry., on construction. *TT 0.8: P 0.8.*—Oct. 1906 to Oct. 1907 Transitman, Seaboard Air Line Ry., on relocation. *TT 1: P 1.*—

Oct. to Dec. 1907 Asst. Res. Engr., Norfolk & Southern Ry., on construction. *TT 0.2: P 0.2: RC 0.2.*—June 1908 to Feb. 1913 in Philippine Islands, until April 1910 as Surveyor, Bureau of Lands, then Dist. Engr., Bureau of Public Works, on construction. *TT 4.5: P 4.5: RC 4.5.*—Feb. 1913 to May 1917 Constr. Engr. with J. E. Sirrine, Greenville, S. C. *TT 4.2: P 4.2: RC 3: D 1.2.*—May 1917 to July 1919 with U. S. Army, until June 1917 as Eng. Student in training camps, then Capt., Engrs., in United States, England, France, etc. *TT 2.3: P 2.3: RC 2.1.*—Aug. 1919 to Nov. 1927 Res. Engr. and Supt., manufacturing plant, Republic Cotton Mills, Great Falls, S. C., in charge of construction of two large reinforced concrete mills, also laid out and constructed industrial town (5 000) including streets, sewers, water-supply system, schools, churches, moving-picture theater, ice plant, stores, etc., and (after 1924) in charge of operation of plant. *TT 8.3: P 8.3: RC 8.3.*—Nov. 1927 to date Gen. Mgr., textile plant, Slater (S. C.) Mfg. Co., in entire charge of operation and general charge of addition to village (60 houses), with streets, water and sewer lines. *TT 2: P 2: RC 2.—TT 27.5: SP 0.2: P 27.3: RC 20.1: D 1.2.* Refers to R. B. Cureton, H. L. Hagerman, A. C. Lee, W. S. Lindsay, Jr., J. E. Sirrine.

1370

(11) **THOMPSON, HARRY LAWRENCE**, 518 North Sixth St., Albuquerque, N. Mex. (Age 29. Born Jolley, Iowa.) 1921 A. B., Simpson Coll., Indianola, Iowa. 1923 B. S., Mass. Inst. Tech. *TT 4: P 4.*—June 1923 to March 1924 Inspector, Massachusetts State Dept. of Health, on sanitary survey of Merrimack River valley; inspected industries in cities and towns, private and public water supplies, sampled trade wastes, measured quantities and wrote reports. *TT 0.8: P 0.8: RC 0.4.*—March 1924 to Oct. 1926 Jun. Engr., San. Dist. of Chicago, on hydraulic computations, plant-operation records and sewage-treatment plant and Argo experiment-station operations; construction at North Side sewage-treatment works; Inspector on steel, pipe work, clarifier mechanisms and filtros plates, making estimates and vouchers. *TT 2.5: SP 0.2: P 2.3: RC 1.*—Oct. 1926 to date Draftsman, Middle Rio Grande Conservancy Dist., on property maps, drafting and computing areas and coordinates, checking hydraulic and structural designs and estimates; with Appraisal Dept. on appraisal of benefits, damages, assessments, etc., structural design, largely reinforced concrete. *TT 2.7: SP 0.5: P 2.2: RC 1.—TT 10: SP 0.7: P 9.3: RC 2.4.* Refers to L. B. Barker, J. L. Burkholder, B. J. Curtis, A. Diefendorf, C. C. Elder, R. G. Hosea, C. H. Howell.

1371

(1) **TINDALL, CARROLL LELAND**, Apartado 16, Alajuela, Costa Rica. (Age 36. Born Scotts Valley, Cal.) March to Aug. 1917 Constr. Engr., Leon Springs Irrigation Co., Fort Stockton, Tex., on irrigation dam and canals. *TT 0.5: P 0.5.*—Aug. 1919 to March 1920 Instrumentman, Newport News (Va.) Shipbuilding & Dry Dock Co. *TT 0.3: SP 0.3.*—March 1920 to March 1921 Surveyman, U. S. War Dept., Norfolk, Va., in charge of survey party, dredging and triangulation of Norfolk Harbor. *TT 1: P 1.*—April 1921 to Oct. 1925 Res. Engr., North Carolina Highway Comm., Beaufort and New Bern, N. C., in charge of surveys and construction of concrete bridges and highways, etc. *TT 4.6: P 4.6: RC 4.6: D 3.*—Nov. 1925 to Dec. 1926 Div. Engr. and Gen. Supt., National Comm. of Highways of Mexico, in charge of Mexico-Pachuca Road, Nuevo Laredo, Monterey Road and Montemorelos-General Terran Road. *TT 1.1: P 1.1: RC 1.1: D 1.1.*—Feb. 1927 to Nov. 1928 Project Engr., Harris County, Houston, Tex., in charge of design and construction of 40 miles of concrete highways and bridges. *TT 1.8: P 1.8: RC 1.8: D 1.8.*—Nov. 1928 to date Div. Engr. and Div. Supt., Cia. Constructora Latino Americana, San Jose, Costa Rica, in charge of location, plans, designs and construction of 70 miles of highways. *TT 1: P 1: RC 1: D 1.—TT 10.3: SP 0.3: P 10: RC 8.5: D 6.9.* Refers to H. Carrington, C. N. Conner, R. C. Hardman, J. M. Howe, P. K. Schuyler, V. L. Sullivan, C. M. Upham, A. J. Wise.

1372

(1) **VALERI, HUGO BONAVENTURO**, 1717 Zerega Ave., Bronx, New York City. (Age 23. Born New York City.) 1928 B. S. in C. E., N. Y. Univ. *TT 4: P 4.*—Sept. 1928 to Jan. 1929 with Antonio Capace, New York City, in charge (under Matthew W. Del Gaudio, Archt.) of construction of building. *TT 0.2: SP 0.2.*—Feb. 1929 to date Asst. Field Engr., Raritan Copper Works of Perth Amboy, N. J., field and office work. *TT 0.4: SP 0.4.—TT 4.6: SP 0.6: P 4.* Refers to A. Haring, E. G. Hooper, C. T. Schwarze, C. H. Snow, D. S. Trowbridge.

1373

(4) **VARBERO, ANTHONY WILLIAM**, Southwark Station, Philadelphia, Pa. (Age 26. Born Philadelphia, Pa.) May 1922 to Dec. 1927 Structural Draftsman and Designer in steel and concrete, on a Masonic Temple, three hospitals, a building, a dye-works, a school and convent, an academy and chapel, etc. (\$150 000 to \$1 000 000), until April 1927 with Stearns & Woodnutt, then with E. G. Perrot, Philadelphia, Pa. *TT 3.9: SP 1.7: P 2.2:*

D 1.6.—April 1928 to May 1929 Structural Designer, until April 1928 with Julian S. Simsohn, Philadelphia, designing steel and checking a fabricating shop (\$1 000 000), then with Stearns & Woodnutt, designing and drafting on a nurses' home (\$200 000) and a hospital (\$800 000). *TT 1: SP 0.1: P 0.9: D 0.7.*—June 1929 to date Structural Draftsman, United Engrs. & Constrs., Philadelphia. *TT 0.5: P 0.5.*—*TT 5.4: SP 1.8: P 3.6: D 2.3.* Refers to W. E. Belcher, E. G. Perrot, T. B. Rights, W. R. Sauter, T. S. Williams.

1374

(11) VILLAGRANA, ROBERT JANES, 3609 Third Ave., Los Angeles, Cal. (Age 23. Born San Diego, Cal.) 1928 B. S., Univ. of Cal. *TT 4: P 4.*—Aug. 1928 to May 1929 post-graduate student in Civ. Eng., Univ. of California.—July 1929 to date Engr., Southern Service Unit, Standard Oil Co. of California. *TT 0.3: P 0.3.*—*TT 4.3: P 4.3.* Refers to R. E. Davis, C. Derleth, Jr., F. S. Foote, C. G. Hyde.

1375

(1) VOELKER, ROBERT ANDREE, 901 Livingston Ave., New Brunswick, N. J. (Age 22. Born New Brunswick, N. J.) 1928 B. S. in C. E., and 1929 M. S. in S. E., Rutgers Univ. *TT 4: P 4.*—April 1923 to June 1928 (vacations, and spare time) Transitman, Chf. of Party and Calculator, Eng. Dept., Utility Eng. & Constr. Co., New Brunswick, N. J.—July 1929 to date on engineering survey, Raritan Valley Pollution Survey. *TT 0.3: P 0.3.*—*TT 4.3: P 4.3.* Refers to C. C. Armstrong, A. Atkinson, H. N. Lendall, E. H. Rockwell.

1376

(10) WALKER, JAMES GOOKIN, 600 American Traders Bank Bldg., Birmingham, Ala. (Age 27. Born Lowell, Mass.) Oct. 1921 to June 1925 student in Architectural Eng., Massachusetts Inst. of Technology. *TT 2: P 2.*—June to Sept. 1925 Foreman with D. H. Walker, Contr., Lowell, Mass., on design and ran instrument. *TT 0.2: SP 0.2.*—Sept. to Oct. 1925 Inspector, Tonawanda County, Buffalo, N. Y., on concrete roads. *TT 0.1: P 0.1.*—Oct. to Dec. 1925 Engr., Lundorf Bicknell Constr. Co., on Michigan Theatre Bldg., being Asst. to Rapp & Rapp, Archts., Chicago, Ill., acting as Rodman, with some design and drafting. *TT 0.1: SP 0.1.*—Jan. to March 1926 Engr., Ferro Concrete Constr. Co., Cincinnati, Ohio, on Masonic Temple Bldg., acting as Rodman, etc. *TT 0.2: SP 0.2.*—March 1926 to Oct. 1929 Structural Engr., Portland Cement Association, Atlanta Dist. (Ga. and S. C.), in charge of work, designed concrete.—Oct. 1929 to date Service Engr. (9 states), Alpha Portland Cement Co., Easton, Pa., in charge of work. *TT 3.7: P 3.7: RC 3.7.*—*TT 6.1: SP 0.5: P 5.6: RC 3.6.* Refers to R. S. Fiske, J. J. Galliard, T. K. Legare, R. G. Lose, W. C. Spiker.

1377

(11) WARD, GEORGE CLINTON, 1711 Fair Oaks Ave., South Pasadena, Cal. (Age 66. Born White Plains, N. Y.) 1927 D. E., Univ. of S. Cal. 1928 D. Sc., Oberlin (Ohio) Coll.—1881 to 1883 Chainman, Leveler, etc., New York, West Shore & Buffalo Ry. *TT 1.5: SP 1.5.*—1884 to 1896 Asst. Engr. and Res. Engr., Carthage & Adirondack, Mohawk & Malone, Racket Lake, and New York, Lake Erie & Western Rys., on surveys, location, construction and maintenance. *TT 13: P 13: RC 10: D 3.*—1897 to 1898 Asst. Engr., New York State Canals. *TT 2: P 2: RC 2.*—1899 to 1910 on design, construction and operation of water-works systems. *TT 12: P 12: RC 12: D 5.*—1911 to date in executive charge of all engineering and construction for Big Creek-San Joaquin development of Southern California Edison Co., including 3 gravity-section dams (max. height about 180 ft.) making Huntington Lake Reservoir (89 000 acre ft.), a multiple-arch dam (58 arches, max. height about 175 ft.), making Florence Lake Reservoir (65 000 acre ft.), a gravity-section dam (concrete), making Shaver Reservoir (135 000 acre ft.), and 5 single-arch diversion dams (40 ft. to 125 ft. high), 4 power-houses (total 380 000 kw. under static head, 2 570 to 800 ft.), about 40 miles of tunnel for water conduit (600 to 3 000 sec. ft.), 250 miles of double-circuit transmission line; also had executive charge of engineering and construction of other transmission lines, substations and structures, including 300 000-kw. addition to Long Beach steam plant. *TT 19: P 19: RC 19.*—*TT 47.5: SP 1.5: P 4.6: RC 4.3: D 8.* Refers to H. W. Dennis, H. L. Doolittle, D. H. Redinger, O. J. Schieber, E. F. Van Hoesen.

1378

(4) WERTZ, CLAUDE FRANKLIN, 6146 North Sixth St., Philadelphia, Pa. (Age 31. Born Reading, Pa.) 1920 B. S. in San. Eng., Pa. State Coll. *TT 4: P 4.*—July 1915 to Sept. 1916 Rodman, Wm. H. Dechant & Son, Reading, Pa., on topographic surveying and mapping, subdivision, line grade for curb, street paving, etc. *TT 0.6: SP 0.6.*—July 1920 to July 1926 with Pennsylvania State Dept. of Health, until Jan. 1922 as Asst. Engr., Eng. Bureau, Harrisburg, Pa., being Asst. on survey of industrial-waste pollution of Schuylkill River as affecting water supply of Philadelphia, also on survey of acid-mine drainage pollution in soft-coal region of State; work included sanitary chemical analysis, stream gauging, com-

pling and charting meteorological data, reports, etc.; after Jan. 1922 Asst. Dist. Engr., Dist. H. (Philadelphia and Chester, Delaware, Montgomery and Bucks Counties), supervising operation of about 75 water-works and 60 sewage-treatment works, investigating and reviewing designs of proposed water-works, sewage-treatment works and sewerage systems; industrial waste pollution surveys; epidemiological work on disease outbreaks and general sanitary engineering, reviewed gravity rapid-sand filter plant designs for boroughs of Norristown and Kennett Square and cities of Coatesville and Philadelphia, comprehensive sewer system and sewage-treatment works designs for Norristown, Bridgeport, Quakerstown, etc. *TT 6: P 6: RC 3: D 0.5.*—July 1926 to date with Fuller & McClintock, Cons. Engrs., Philadelphia office, until April 1927 as Asst. Engr. on design of filter-plant extensions for Wernersville State Hospital, sewage-treatment plant for Borough of Hanover, Pa., field investigation, study and report on equalizing reservoir for Danville, Pa., and Asst. on sewerage studies for New Haven and Lancaster; since April 1927 Prin. Asst. Engr., on design of sewage-treatment works, outfall sewers, storm-water regulators, etc., for Lancaster, Pa., Laurelton State Village for Feeble Minded Women, Ellis College, Newtown Square, Pa., and for Middletown and Binghamton, N. Y., and New Haven, Conn., study of distribution system extensions for York (Pa.) Water Co.; study and review of designs of incinerators for Middletown, N. Y.; on sewerage company valuation of Abington Township, Montgomery County, Pa.; supervision of design and construction of improvements to sewage-treatment works of Wayne (Pa.) Sewerage Co. *TT 3.4: P 3.4: RC 3: D 2.4.*—*TT 14: SP 0.6: P 13.4: RC 6: D 2.9.* Refers to C. A. Emerson, Jr., B. Franklin, H. M. Freeburn, G. W. Fuller, I. M. Glace, J. L. Rubert, W. L. Stevenson.

1379

(11) **WHELAN, DANIEL EDWARD, Jr.**, 3833 Tilden Ave., Culver City, Cal. (Age 32. Born Dorchester, Mass.) 1921 B. S., Mass. Inst. Tech. *TT 4: P 4.*—June 1921 to July 1926 with U. S. Coast and Geodetic Survey, until Jan. 1922 as Deck Officer, on computation of geodetic positions and Instrumentman on hydrographic and topographic surveys, Jan. 1922 to Nov. 1923 Aid, being Asst. to Inspector, Seattle (Wash.) field station and Watch Officer aboard U. S. S. *Explorer*, in responsible charge of subparties on leveling, triangulation, topographic and hydrographic projects, and after Nov. 1923 (except 10 months on sick leave) on similar work as Jun. Hydrographic and Geodetic Engr., with rank of Lieut. (j.g.), U. S. Navy. *TT 3.1: SP 1.1: P 2: RC 2.*—April to Oct. 1928 and March to June 1929 Office Engr. with Parker & Hill, Cons. Engrs., Seattle, planning and computing real-estate subdivisions, etc. *TT 0.8: P 0.8.*—Nov. 1928 to Jan. 1929 Office Engr. with Hubbell & Waller, Civ. Engrs., Seattle, platting and computing surveys. *TT 0.2: P 0.2.*—Sept. 1929 to date Instructor of Civ. Eng., Loyola Univ., Los Angeles, Cal. *TT 0.2: P 0.2.*—*TT 8.3: SP 1.1: P 7.2: RC 2.* Refers to F. S. Borden, H. B. Campbell, F. H. Hardy, J. H. Hawley, G. L. Hosmer, R. D. Horne, J. W. Howard, R. F. Luce, C. M. Spofford.

1380

(13) **WHITWORTH, GEORGE FREDERICK**, 435 Matson Bldg., San Francisco, Cal. (Age 32. Born Berkeley, Cal.) 1924 B. S. in Civ. Eng., Univ. of Cal. *TT 4: P 4.*—Aug. 1919 to Aug. 1921 and May 1924 to Aug. 1926 with Pacific Gas & Elec. Co., San Francisco, Cal., until Aug. 1921 as Asst. to Engr. in charge of substations designed and supervised construction of substations and was responsible for Head Office records of department, and after May 1924 with Valuation Dept., supervising valuation and inventory of substations, making studies of severance damage. *TT 4.2: P 4.2: RC 2: D 2.*—Oct. 1926 to Sept. 1927 Res. Engr., Port San Francisco (terminal development), in charge of all field engineering for San Francisco Bay Terminals Co., laying out and supervising work for dredges, planning and laying out town-site, etc. *TT 0.8: P 0.8: RC 0.8: D 0.8.*—Feb. to May 1928 Field Engr., P. J. Walker Co., Mgrs. of Constr. San Francisco, on foundation of H. C. Capwell Bldg. *TT 0.2: P 0.2.*—Oct. 1928 to Feb. 1929 Asst. to Supt., Tower Dept., Pacific Coast Steel Co., South San Francisco, in charge of fabricating structural steel for a wharf. *TT 0.3: P 0.3.*—Aug. to Oct. 1926 and Feb. 1929 to date with A. A. Brown, Cons. Engr., San Francisco, until Oct. 1926 supervising and inspecting pile foundations for Matson Port Accessories Bldg., and since Feb. 1929 Office Engr., designing pipe line, pumping and control equipment, reservoirs, dams, etc. *TT 1: P 1: D 0.8.*—*TT 10.5: P 10.5: RC 2.8: D 3.6.* Refers to A. A. Brown, U. G. Brown, R. E. Davis, C. Derleth, Jr., H. Forbes, C. G. Hyde, R. A. Monroe, I. C. Steele, F. G. White.

1381

(4) **WILLS, WILLIAM COMPTON**, 815 West Twenty-second St., Wilmington, Del. (Age 37. Born Mauricestown, N. J.) 1916 B. S. C. E., and 1920 C. E., Univ. of Delaware. *TT 4: P 4.*—June 1916 to date with Board of Water Comms., Wilmington, Del., until Sept. 1918 as Transitman on rapid sand filter, concrete covered reservoir, Constr. Engr. on pump house and

installation of turbine pumps (30 000 000 gal. daily) and placing waterproofing slab in floor, 2-acre slow sand filter, and Res. Engr. on last half of construction of 7 500 000-gal. concrete covered reservoir; Sept. 1918 to July 1924 Asst. Engr. in charge of distribution, being in charge of operation of a rapid-sand and a slow-sand filter (each 14 000 000 gal. daily), bacteriological laboratory, sanitary supervision 325-sq. mi. watershed, distributing reservoirs and routine design; since July 1924 Asst. Engr. in charge preliminary studies for \$3 000 000 impounding reservoir project; also construction of \$70 000 coagulating basin, mixing chamber and connections. *TT 13.3: P 13.3: RC 12.8: D 5.—TT 17.3: P 17.3: RC 12.8: D 5.* Refers to E. M. Hoopes, Jr., J. R. McClintock, E. R. Mack, E. G. Manahan, F. S. Price, S. N. Van Trump, W. B. Wood.

1382

(1) **WOOD, HARLAND GEORGE**, Care, Cla. Latino-Americano, Apartado 16, Alajuela, Costa Rica. (Age 27. Born Greensprings, Ohio.) 1924 B. S. C. E., Case School of Applied Sci. *TT 4: P 4.*—June 1924 to June 1925 Deputy County Engr., Sandusky County, Ohio, surveys, plans and construction on highway work. *TT 0.9: SP 0.1: P 0.8.*—June 1925 to Oct. 1928 with United Fruit Co. and Northern R. R. of Costa Rica, as Engr. in charge of field work and later Engr. in charge of bridges, on general surveys, building construction, railroad curves and grades, bridges and culverts; work included detailed study of Virilla train wreck on Costa Rica R. R. (1926), also river protection and pier maintenance. *TT 3.3: P 3.3: RC 1.5: D 0.2.*—Oct. 1928 to Aug. 1929 Highway Engr., Costa Rican Govt., in complete charge of the location, plans and specifications for 55 kilometers of improved type of highway in province of Guanacaste; also checked measurements, made soundings and general report as to advisable methods on a 294-ft. through Petit Truss and a 117-m. cantilever arch bridge. *TT 0.8: P 0.8: RC 0.8: D 0.1.*—Sept. 1929 to date Constr. Engr., Latino-Americano Constr. Co. *TT 0.2: P 0.2.—TT 9.2: SP 0.1: P 9.1: RC 2.3: D 0.3.* Refers to H. Carrington, D. J. Cloward, C. M. Upham. (Applies in accordance with Sec. 1, Art. I, of the By-Laws.)

1383

(1) **WOODBIDGE, CYRIL JAMES**, 61 West Eighty-Third St., New York City. (Age 23. Born San Francisco, Cal.) 1927 B. S. in C. E., Univ. of Cal.; 1929 M. S., Univ. of Ill. *TT 4: P 4.*—Oct. 1929 to date Draftsman, Jackson & Moreland, catenary design for steam railroad electrification. *TT 0.1: SP 0.1.—TT 4.1: SP 0.1: P 4.* Refers to R. Ferguson, I. M. Neudatchin.

1384

(9) **ZAGOREN, LOUIS ISAAC**, 3987 Warwick Ave., Cincinnati, Ohio. (Age 38. Born New York City.) 1914 C. E., Cornell Univ. *TT 4: P 4.*—July 1914 to May 1919 Asst. to Sec. Engr., Public Service Comm., New York City, on subway construction from surveys to completion, having direct charge of field parties and estimates. *TT 4.8: P 4.8: RC 4.6.*—May 1919 to April 1920 Chf. Designer, Kaufman & Levine, Cons. Engrs., New York City, designing and superintending on structural steel, reinforced concrete and timber. *TT 0.9: P 0.9: RC 0.9: D 0.9.*—April 1920 to Dec. 1921 Chf. Draftsman, Southern Eng. Co., Charlotte, N. C., designing, estimating and detailing on structural steel, reinforced concrete and timber; in charge of Eng. Dept. *TT 1.7: P 1.7: RC 1.7: D 1.7.*—Jan. to Oct. 1922 Engr., Concrete Steel Co., New York City, estimating, designing and detailing reinforced concrete. *TT 0.8: P 0.8: RC 0.8: D 0.8.*—Oct. 1922 to date with Goldsmith Metal Constr. Co., Cincinnati, Ohio, until July 1924 Dist. Engr., New York office, and at present Chf. Engr. in charge of estimating, designing, detailing reinforced concrete and structural steel. *TT 7.2: P 7.2: RC 7.2: D 7.2.—TT 19.4: P 19.4: RC 15.2: D 10.6.* Refers to F. A. Barnes, J. B. Black, E. D. Gilman, H. W. Hanly, E. Lieberman, F. F. Sinks, D. R. Wells.

1385

(5) **ZIMMERMAN, HOWARD McCORD**, 2907 Eastern Ave., Baltimore, Md. (Age 22. Born Baltimore, Md.) 1927 B. E., The Johns Hopkins Univ. *TT 4: P 4.*—Summers 1924 and 1925 Designer, The Bartlett Hayward Co., Baltimore, Md., on design of steel shell of waterless gas-holders.—Summer 1926 Structural Draftsman, American Bridge Co., Ambridge, Pa., detailing steel bridges and mill buildings.—June 1927 to Aug. 1929 Production Engr., Armstrong and Parker, Baltimore, Md., being Estimator and Designer and on shop inspection of fabricated steel, writing contracts. *TT 1.9: SP 0.3: P 1.6: RC 1.6.*—Oct. 1928 to April 1929 and at present Asst. Instructor, Johns Hopkins Univ., night courses in structural design.—Sept. 1929 to date Structural Engr., U. S. Govt. Treasury Dept., Superv. Archt.'s Office, on design of structures. *TT 0.2: P 0.2: D 0.2.—TT 6.1: SP 0.3: P 5.8: RC 1.6: D 0.2.* Refers to T. F. Comber, Jr., J. H. Gregory, J. T. Thompson.

FOR TRANSFER

FROM THE GRADE OF ASSOCIATE MEMBER

1386

(1) **BANCROFT, EDWARD NATHANIEL**, Assoc. M., Kingston, Jamaica. (Elected Nov. 26, 1923.) (Age 40. Born Oracabessa, Jamaica.) Dec. 1906 to July 1910 and Oct. 1912 to Oct. 1913 with United Fruit Co., until July 1910 as Timekeeper, Asst. on farm and in charge of a farm and engineering work, Bocas Div., Bocas del Toro, Panama, leveling and land measurement, and after Oct. 1912 Asst. Engr., Banos (Cuba) Div., on construction of wooden framed buildings, location and construction of railroad. *TT 2.8: SP 1.8: P 1: RC 1.*—Sept. 1910 to Oct. 1911 Asst. City Surveyor, Mayor and Council, Kingston, Jamaica, reconstructing streets, also plan of Kingston. *TT 1: P 1.*—Oct. 1911 to Sept. 1912 Asst. Engr., Jamaica Govt. Ry., on location and construction of Chapelton Branch Line. *TT 1: P 1.*—Dec. 1913 to May 1916 and March 1919 to April 1920 Asst. Engr., United Rys. of Havana, Cuba, in drawing office, in charge of field party on location, Res. Engr. in charge of construction and (after March 1919) on location of projected elevated railway and Res. Engr. on construction of 17-mile marshalling yard. *TT 3.7: P 3.7: RC 3.7.*—July 1916 to Feb. 1919 with Royal Engrs., British Army, until Dec. 1916 as Cadet at School of Military Engineering, Chatham, England, then 2d Lieut., Royal Engrs., from Jan. 1917 with 91st Field Co., 15th Div., B. E. F., in France, Jan. to Oct. 1917 Field Engr., 17th Corps, in charge of roads during Battle of Arras, then with 157th Field Co., 16th Div., after July 1918 Lieut., acting as Sec. Officer, being second in command and Acting Officer commanding Field Co. *TT 2.7: RC 2.7.*—April 1920 to Sept. 1922 Owner of Bancroft Bros., Havana, electrical repairs and welding; contracted electrical bonds for Hershey Cuban R. R. (144 km.). *TT 2.5: P 2.5: RC 2.5.*—Sept. 1922 to May 1926 Chf. Civ. Engr., Trinidad Sugar Co., at Central Trinidad, Cuba, 60 km. railroad (built 6 km., 3-rail track), also located 40 km. new lines, and Supt. of Bldgs. and Elec. Plant; after Aug. 1924 Constr. Engr. at Central Banganos; constructed over 80 km. of new lines, Baguanos Tacajo and San German. *TT 3.7: P 3.7: RC 3.7: D 1.*—Sept. 1926 to July 1927 member of firm, Thwaites, Jellicoe & Bancroft, Cons. Engrs., London, England, on work in Spain. *TT 0.9: P 0.9: RC 0.9: D 0.9.*—July 1927 to May 1929 with Colonial Govt. of Great Britain as Senior Survey Engr. with Nigerian Ry., Nigeria, West Africa, in charge of location, 145-mile extension, with tangent (81½ miles long), also 100 miles of proposed Lafia Chad Branch. *TT 1.7: P 1.7: RC 1.7: D 1.5.*—May 1929 to date Surveyor-General for Jamaica, British West Indies, in charge of Survey, Land and Forestry Depts. *TT 0.5: P 0.5: RC 0.5.*—*TT 20.6: SP 1.8: P 18.8: RC 16.8: D 4.4.* Refers to J. H. Digby, S. C. Henriques, A. A. Johnson, A. F. de Jongh, G. P. Seeley, Jr., R. S. Webster, H. Weightman.

1387

(12) **BLAIR, HOMER ORRIN**, Assoc. M., 524 North Cushman Ave., Tacoma, Wash. (Elected Jan. 18, 1926.) (Age 47. Born Wellsboro, Pa.) 1914 B. S. in Elec. Eng., Univ. of Wash. *TT 4: P 4.*—1914 and Jan. 1916 to May 1919 with Puget Sound Light & Power Co., first as Operator at hydro-electric power plant, Dieringer, Wash., and after Jan. 1916 Inventory Engr. and Statistician, on inventory of equipment of water-power plants, electrical substations and auxiliary steam plants; compiled reports, etc. *TT 4.4: P 4.4: RC 1.5.*—1915 Asst. Engr. on inventories, until June with Henry L. Gray, Cons. Engr., Seattle, Wash., then with Public Service Comm. of Washington, Olympia, Wash., on appraisal of street railway at Seattle. *TT 1: P 1.*—May 1919 to Sept. 1921 Terminal Land Appraiser, Northern Pacific Ry., Great Northern Ry., Oregon-Washington R. R. & Navigation Co.; compiled valuation report of property within city limits of Tacoma, Wash. (\$16 000 000). *TT 2.3: P 2.3: RC 2.3: D 2.3.*—Oct. 1921 to date in private practice as Cons. Engr., principally for St. Paul & Tacoma Lumber Co., Tacoma Gas & Fuel Co., Puget Sound Iron & Steel Works, Wheeler Osgood Co. and Birchfield Boller Co., all of Tacoma, made annual tax-valuation reports; land valuation report on Tacoma property, Oregon-Washington Ry. & Navigation Co.; design of buildings under d'Humy patents at Seattle, Tacoma and Vancouver, B. C., Canada (\$1 500 000), and of electrical pumping project for Methow-Okanogan Reclamation Dist. (\$150 000); traffic survey for toll-bridge near Tacoma for Robinson & Steinman, Cons. Engrs., New York City; Elec. Engr., City of Puyallup, Wash., on valuation of electrical property (\$250 000). *TT 8: P 8: RC 8: D 8.*—*TT 19.7: P 19.7: RC 11.8: D 10.3.* Refers to H. L. Gray, E. B. Hussey, W. A. Kunigk, G. L. Parker, W. J. Roberts, J. L. Stannard.

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(5) **COMBER, THOMAS FRANCIS, Jr.**, Assoc. M., The Johns Hopkins Univ., Baltimore, Md. (Elected Jan. 19, 1925.) (Age 36. Born Lawrence, Mass.) 1914 B. S., Mass. Inst. Tech. *TT 4: P 4.*—June 1914 to June 1915 Asst. Instructor in Civ. Eng., Massachusetts Inst. of Technology; Instructor at Summer Surveying Camp. *TT 0.5: SP 0.5.*—June 1915 to Sept. 1917 Asst. Engr., United States Realty and Improvement Co., on sub-surface structures (pipes, cables, sewers, gas, etc.), 7th Ave. Subway construction, New York City. *TT 1.7: SP 0.5: P 1.2: RC 1.2.*—Sept. 1917 to March 1919 Private to 2d Lieut., U. S. Army in France, 29th Engrs., topographic unit, 3d Army Corps. *TT 1.3: SP 0.3: P 1: RC 1.*—March 1919 to Sept. 1920 Foreman in charge, L. E. Locke & Son, Contrs., Lawrence, Mass., sewers, water pipes, reinforced concrete. *TT 1.3: P 1.3: RC 1.3.*—Sept. 1920 to date Instructor and Associate in Civ. Eng., The Johns Hopkins Univ., Baltimore, Md.; part of time (total one year) Designing Engr., The J. E. Greiner Co., Cons. Engrs., Baltimore. *TT 9.2: P 9.2: RC 9.2: D 1.*—*TT 18: SP 1.3: P 16.7: RC 12.7: D 1.* Refers to H. H. Allen, W. T. Ballard, J. H. Gregory, J. E. Greiner, O. H. Schroedl, C. M. Spofford, J. T. Thompson.

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(14) **CUSHING, ALLSTON TATTRIE**, Assoc. M., 508 Huntzinger Bldg., Kansas City, Mo. (Elected Nov. 12, 1928.) (Age 39. Born Wallace, N. S., Canada.) 1909 B. S. Univ. of New Brunswick. 1911 S. B., and 1912 S. M., Mass. Inst. Tech. *TT 4: P 4.*—March 1913 to March 1921 with Pennsylvania Lines West of Pittsburgh, Pittsburgh, Pa., until Dec. 1914 as Draftsman and Checker, Office of Engr. of Bridges, then Asst. on Engr. Corps, Office of Valuation Engr., assisting on appraisal of bridges, culverts, etc., and collecting pre-inventory data for Interstate Commerce Comm., and after Nov. 1915 Structural Pilot Engr., in charge of appraisal of bridges, culverts, fuel and water stations, turntables, wharves, docks, etc., on Pennsylvania Lines, conducting field parties, checking and criticising Interstate Commerce Comm. reports. *TT 6.2: SP 0.8: P 5.4: RC 5.4: D 0.4.*—March to Oct. 1921 Constr. Engr., Harmony Coal Co., Pittsburgh in full charge of design and field work of sinking shaft (45 ft. deep) for coal mine, planning and securing agreements for two railroad sidings, making plans for tipples and machinery. *TT 0.6: P 0.6: D 0.2.*—Oct. 1921 to March 1922 in private practice, Pittsburgh, on work for Chartiers Southern Railroad and two coal companies. *TT 0.4: P 0.4.*—March to Dec. 1922 with Interstate Commerce Comm., Washington, D. C., until Aug. as Structure Engr., then Senior Structure Engr. (grade 2), in charge of reports on structures on all railroads in Western Div. *TT 0.7: P 0.7: RC 0.3.*—Dec. 1922 to date with U. S. Dept. of Agriculture, Packers and Stockyards Administration, Washington, D. C., until June 1928 as Valuation Engr. making stockyard appraisals, testifying, etc. then Senior Valuation Engr., since Aug. 1928 in charge of correlating data and getting out complete appraisal reports. *TT 6.9: P 6.9: RC 1.6.*—*TT 18.8: SP 0.8: P 18: RC 7.3: D 0.6.* Refers to W. C. Cushing, W. O. Galbreath, J. F. Leonard, A. F. Schramm, C. M. Spofford, W. D. Wiggins, C. C. Witt.

1390

(15) **GREHAN, BERNARD HENRY**, Assoc. M., 1670 Soniat St., New Orleans, La. (Elected Junior May 15, 1917, Assoc. M. July 6, 1925.) (Age 36. Born New Orleans, La.) 1915 B. C. E., and 1923 C. E., Tulane Univ. of La. *TT 4: P 4.*—June 1915 to July 1916 with War Dept., U. S. Army Engrs., as Chf. of Party in charge of topographic and hydrographic surveys, stream discharge measurements and preparation of maps on Upper Tennessee River. *TT 1.1: P 1.1: RC 1.1.*—July 1916 to May 1917 Asst. Engr. with J. F. Coleman, Cons. Engr., New Orleans, La., on design and supervision of construction. *TT 0.8: P 0.8: RC 0.1: D 0.7.*—May 1917 to July 1919 with 312th Engrs., U. S. Army, as 2d Lieut. and after Dec. 1917 1st Lieut.; from Aug. 1918 to March 1919 with A. E. F. in France, then student in Naval Architecture, Royal Technology Coll., Glasgow, Scotland. *TT 2: SP 0.2: P 1.8: RC 1.8.*—Aug. 1919 to Sept. 1924 Engr. and Estimator for Geo. J. Glover and Sept. 1924 to date member of firm and of Board of Directors, Geo. J. Glover Co., Inc., supervising building construction, estimating, bids, structural design, etc. *TT 10.3: P 10.3: RC 8: D 2.2.*—*TT 18.2: SP 0.2: P 18: RC 11: D 2.9.* Refers to E. S. Bres, J. F. Coleman, P. D. Cook, D. Derickson, M. Garsaud, F. A. Muth, S. M. Young.

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(7) **HABERLE, EDWARD LOUIS**, Assoc. M., 1310 Emerson Ave. North, Minneapolis, Minn. (Elected Junior, Dec. 3, 1913; Assoc. M., Jan. 13, 1919.) (Age 42. Born Winona, Minn.) 1912 B. S. in C. E., and 1913 C. E., Univ. of Minn. *TT 4: P 4.*—Summer 1912 Rodman, Chicago, Milwaukee & St. Paul R. R. Co.—June 1913 to date with Great Northern Ry. Co., until Feb. 1923 as Draftsman, Inspector, Designer and Estimator, Bridge Dept., on design of timber, steel and concrete structures, inspecting and supervising erection of railway and

highway bridges, undercrossings, turntables, and coal chutes, etc.; since Feb. 1923 Asst. Engr. and Structural Engr. designing and supervising erection of steel bridge reinforcement, designing drawspans, checking design steel coal chutes, etc.; studies and layouts of bridges, supervision of structural estimates. *TT 15.8: SP 0.5: P 15.3: RC 8.1: D 7.2.—TT 19.8: SP 0.5: P 19.3: RC 8.1: D 7.2.* Refers to F. Bass, O. S. Bowen, A. S. Cutler, A. H. Hogeland, H. S. Loeffler.

1392

(2) HAERTLEIN, ALBERT, Assoc. M., Harvard Eng. School, 114 Pierce Hall, Cambridge, Mass. (Elected Junior March 9, 1920; Assoc. M. July 9, 1923.) (Age 34. Born Alton, Ill.) 1916 A. B., Harvard Coll. 1918 B. S. in Harvard Univ. and Mass. Inst. Tech. *TT 4: P 4.—* Summers Asst. in Surveying, Harvard Eng. Camp (1916) and Massachusetts Inst. of Technology Camp (1917).—Sept. 1917 to April 1918 (part of time) Asst. in Dept. of Civ. Eng., Massachusetts Inst. of Technology.—April 1918 to Sept. 1919 with Corps of Engrs., U. S. Army, after July 1918 as 1st Lieut. in command of Co. B, 546th Engrs., A. E. F. *TT 1.5: P 1.5: RC 1.3.—*Sept. 1919 to June 1923 Instructor in Civ. Eng., Harvard Eng. School; summers 1921 and 1922 in charge of instruction in surveying; Asst. to Prof. G. F. Swain in consulting practice. *TT 3.8: P 3.8: RC 0.4: D 2.—*June 1923 to April 1925 with Dwight P. Robinson & Co., as Structural Engr. on design of power station, substations and transmission lines. *TT 1.8: P 1.8: RC 1: D 1.8.—*April 1925 to Sept. 1928 Supt. of Plans and Schedules, Duquesne Light Co., Pittsburgh, Pa. *TT 3.5: P 3.5: RC 3.5: D 3.5.—*Sept. 1928 to Sept. 1929 Lecturer, and Sept. 1929 to date Associate Prof., in Civ. Eng., Harvard Eng. School. *TT 1.2: P 1.2: RC 1.2.—TT 15.8: P 15.8: RC 7.4: D 7.3.* Refers to G. M. Fair, H. J. Hughes, L. J. Johnson, M. R. Sumner, G. F. Swain, H. M. Turner.

1393

(7) HOPKINS, PETER FRANCIS, Assoc. M., 419 First St. S. E., Mason City, Iowa. (Elected Dec. 6, 1920.) (Age 45. Born Colo., Iowa.) 1916 B. S. in C. E., and 1921 C. E., Iowa State Coll. *TT 4: P 4.—*Vacations 1912 to 1916 on surveys, general engineering and construction on sewers, bridges, highways, etc.—May 1916 to June 1917 Instructor in Surveying, Iowa State Coll., and State Lake Bed Survey. *TT 1: P 1: RC 1.—*July to Sept. 1917 Asst. Engr., Iowa Highway Comm., on Federal Aid projects. *TT 0.3: P 0.3: RC 0.3.—*Oct. 1917 to March 1918 Instructor in topographical and highway engineering, Univ. of Wisconsin. *TT 0.5: P 0.5: RC 0.5.—*March 1918 to June 1919 at U. S. Explosives Plant C, Nitro, W. Va., as Inspector on water-works construction, Asst. Chf. Engr. and Chf. Engr., on water, sewers and gas and Supt. of Water. *TT 1.3: P 1.3: RC 1.3.—*July 1919 to June 1927 City Mgr., Ames, Iowa, directly in charge of design, construction and operation of water and electric light plants, designs of sewage-treatment and iron-removal plants, reservoir, extensions of electric-light plant, pavements, sewers, etc. *TT 8: P 8: RC 8: D 5.—*June 1927 to date City Mgr., Mason City, Iowa, in direct contact with and in advisory capacity on all municipal engineering projects, including water plant. *TT 2.3: P 2.3: RC 2.3.—TT 17.4: P 17.4: RC 13.4: D 5.* Refers to T. R. Agg, O. W. Crowley, C. H. Currie, A. F. Fischer, M. S. Ketchum, A. Marston.

1394

(7) MAHER, JOHN RALPH, Sr., Assoc. M., Eldora, Iowa. (Elected Feb. 25, 1924.) (Age 39. Born Wagnor, Ill.) 1916 B. S. in Civ. Eng., Mo. School of Mines. *TT 4: P 4.—*June 1918 to Feb. 1919 with 472d Engrs., U. S. Army, until Oct. 1918 in school at Camp Humphreys, Va., then Topographer at Ft. Sill, Okla. *TT 0.7: P 0.7.—*April 1916 to June 1918 and Feb. 1919 to date with Hardin County, Iowa, engaged as follows: April to July 1916 assisting Drainage Engr. on preliminary surveys, plans and construction of drainage districts and farm drainage, and Instrumentman on paving, Eldora, Iowa; July 1916 to Feb. 1918 assisting County Engr. on preliminary surveys and plans, road, bridge and highway drainage district construction, and in charge of farm drainage for Wisner estate; Feb. to June 1918 County Engr. on preliminary surveys, plans, construction and maintenance of roads and bridges, land surveys and subdivision; Feb. 1919 to Jan. 1920 County Road Engr., on preliminary surveys, plans, construction and maintenance of roads and highway drainage districts; drainage assessments, land surveys and subdivisions; Jan. 1920 to Jan. 1923 County Engr., being Res. Engr. on preliminary plans, construction and maintenance on county and state roads, bridges and highway drainage districts; Jan. 1923 to July 1927 County Highway and Drainage Engr. and Res. Engr. on state road construction, preliminary surveys, plans, construction and maintenance, county roads and drainage, state roads, bridges; plans and preliminary surveys for City and preliminary survey and construction of reinforced concrete spillway and hydraulic fill dam for State Park, Eldora; July 1927 to Aug. 1929 County Highway and Drainage Engr. and Maintenance Supt. of State roads in County; since Aug. 1929 County Highway and Drainage Engr., in charge of maintenance

and construction of roads, bridges and drainage districts and of construction and plans for secondary roads (\$500 000). *TT 12.9: P 12.9: RC 11.1: D 3.2.—TT 17.6: P 17.6: RC 11.1: D 3.2.* Refers to C. C. Coykendall, O. W. Crowley, J. S. Dodds, E. G. Harris, F. H. Mann, A. Marston, F. R. White.

1395

(1) **NIMMO, WILLIAM HOGARTH ROBERTSON**, Assoc. M., Albert St., Brisbane, Queensland, Australia. (Elected April 2, 1913.) (Age 44. Born Torquay, England.) Mun. Engr., States of Victoria and New South Wales, and Engr. of Water Supply, State of Victoria, 1908 B. C. E., and 1924 M. C. E., Univ. of Melbourne. *TT 4: P 4.—Nov. 1905 to May 1906 Designer, Sewerage Branch, Melbourne and Metropolitan Board of Works, on design of sewer layouts. TT 0.2: SP 0.2.—May to Dec. 1906 Draftsman, Office of City Engr., Melbourne, on plans for streets, etc. TT 0.3: SP 0.3.—Feb. 1907 to Sept. 1910 Draftsman, until Feb. 1908 with Victorian Govt. Rys., on plans for structures, and estimates of earth-works on new lines, then with State Rivers and Water Supply Comm., Victoria, on design and supervision of works for town water supplies. TT 2.8: SP 0.8: P 2.—Sept. 1910 to Feb. 1912 Leveler, Water Supply Dept., Queensland, on flying survey of West Queensland artesian area to determine hydraulic gradients. TT 0.7: SP 0.7.—March 1912 to March 1913 Eng. Surveyor, Water Conservation and Irrigation Comm., New South Wales, on topographic surveys of Murrumbidgee Irrigation area. TT 1: P 1.—April to Aug. 1913 visited engineering works in United States and Canada.—Dec. 1913 to Jan. 1918 Draftsman, Public Works Dept., Tasmania, on investigation, design and supervision of bridges, river and harbor works, water supply, drainage and electric supply schemes. TT 4.1: P 4.1.—Feb. 1918 to Dec. 1923 with Hydro-Elec. Dept., Tasmania, until Dec. 1918 as Asst. Engr. on investigation and designs for proposed water-power projects. TT 5.9: P 5.9: RC 4.9: D 1.6.—Jan. 1924 to Oct. 1926 Civ. Engr., Metropolitan Water Supply and Sewerage Board, Brisbane, in charge of construction of approx. 350 miles of reticulation sewers (about £400 000), including submarine crossing of Brisbane River; also (occasionally) on design and location of sewers. TT 2.8: P 2.8: RC 2.8: D 0.3.—Nov. 1926 to date Designing Engr., Main Roads Comm., Brisbane, responsible for designs and estimates for road schemes (approx. £1 000 000 annually). TT 3: P 3: RC 3: D 3.—TT 24.8: SP 2: P 22.8: RC 10.7: D 5.8.* Refers to J. H. Butters, C. C. Halkyard, R. J. Hicks, F. McCormick, I. M. Sutherland, T. H. Upton.

1396

(1) **PROCTOR, CARLTON SPRINGER**, Assoc. M., 342 Madison Ave., New York City. (Elected March 16, 1925.) (Age 36. Born Washington, D. C.) 1916 C. E., Princeton Univ. *TT 4: P 4.—Prior to June 1914 Timekeeper, Surveyor and Foreman, Washington Ry. and Elec. Co., Southern Ry., Mellon Constr. Co. and U. S. Forest Service. TT 1: SP 1.—June 1914 to Oct. 1915 Supt. of Constr. on foundations for American Red Cross Bldg. and Arlington Memorial Amphitheater. TT 1.2: SP 0.2: P 1: RC 1: D 0.7.—June 1916 to Sept. 1918 with McKenzie, Voorhees and Gmelin, Archts., New York City, 1½ years as Supt. of Constr., New York City, then Supt. in charge of Washington Office. TT 2.3: P 2.3: RC 2.3: D 0.5.—Sept. 1918 to Oct. 1919 1st Lieut. and Capt., U. S. Army, being Constr. Officer in charge of U. S. General Hospitals Nos. 32 and 40, Chicago and St. Louis, and 2d Sec. of Walter Reed General Hospital. TT 1: P 1: RC 1: D 0.5.—Oct. 1919 to date member of firm, Moran and Proctor, Cons. Engrs., New York City, specializing in design and supervision of substructures, being Cons. Engr. for foundations of Southern Pacific Bridge, San Francisco, International Bridge, Detroit, and eight other bridges, Richmond Station for Philadelphia Elec. Co., New York Steam Company and Brooklyn Edison Co. plants and many other power plants, dams, etc., New York American League Baseball Stadium, New York Cotton Exchange, and bank, telephone and office buildings (some named in application). TT 10: P 10: RC 10: D 10.—TT 19.5: SP 1.2: P 18.3: RC 14.3: D 11.7.* Refers to F. N. Benedict, H. J. Deutschbein, G. L. Freeman, D. E. Moran, A. C. Perry, S. F. Voorhees.

1397

(1) **RICHARDSON, JAMES HERBERT**, Assoc. M., Municipal Bldg., New York City. (Elected Jan. 2, 1907.) (Age 53. Born Lawrence, Mass.) Sept. 1895 to June 1900 student, Massachusetts Inst. of Technology. *TT 2: P 2.—Summer 1898 Transitman in charge of party, Massachusetts Harbor Land Comm., Boston, Mass.—1900 to 1917 Designer on steel buildings*

and bridges, successively for Eastern Bridge & Structural Co., Worcester, Mass., American Bridge Co., Erie R. R. and Boston & Albany R. R. and on industrial works, power plants for Ford, Bacon & Davis. *TT 16.9: P 16.9: RC 3: D 13.9.*—1917 to 1918 Capt., Engrs., U. S. Army and A. E. F., in France.—1918 to 1920 Engr. with Ford, Bacon & Davis, on valuation, report and design on traction lines and industrial plants, and (last 8 months) with Perin & Marshall. *TT 2: P 2: RC 2.*—1920 to 1922 Placement Officer, U. S. Veterans' Bureau.—1922 to 1927 Designer, successively with McClellan & Junkersfeld, on power-plant work (1 month), Central R. R. of New Jersey, on bridges (4 months), Westcott & Mapes, New Haven, Conn., on power-plant work (5 months), The Foundation Co., on railroad yards and structures (5 months) and New York State Bridge & Tunnel Comm., Holland Tunnel (3 years). *TT 4.2: P 4.2: RC 0.5: D 3.7.*—1927 to date Asst. Engr., Board of Water Supply, New York City, tunnel and shafts. *TT 2: P 2: RC 1: D 1.*—*TT 27.1: P 27.1: RC 6.5: D 18.7.* Refers to O. F. Bellows, O. L. Brodle, G. L. Freeman, O. E. Hovey, O. Singstad, F. A. Snyder, W. E. Spear, W. A. Tyrrell, J. R. Worcester.

1398

(6) **VETTER, CARL MICHAEL**, Assoc. M., 1006 Moyer St., Pittsburgh, Pa. (Elected March 15, 1926.) (Age 40. Born Pittsburgh, Pa.) 1913 diploma in Civ. Eng., Carnegie Inst. Tech. Night School.—April 1908 to April 1913 Asst. on Engr. Corps, Pennsylvania Lines West of Pittsburgh, Pittsburgh Div., drafting, office work, surveying, etc.; did engineering work on 3-mile branch line with 3 trestles and made surveys for number of bridges and arches. *TT 3: SP 2: P 1: RC 1.*—April 1913 to April 1918 Draftsman and later Chf. Draftsman, Chartiers Southern Ry. and Pittsburgh, Chartiers and Youghiogheny Ry., Pittsburgh, maintenance, valuation, construction and accounting; designed 3 trestles and masonry for 44 bridges and arches; prepared plans, estimates and specifications for contracts; also on construction of 1300-ft. tunnel. *TT 5: P 5: RC 1: D 4.*—April to Sept. 1918 Engr. in charge of plant building design, Bethlehem (Pa.) Loading Co., supervised design and detailing of 30 types of buildings (1 to 3 stories, concrete foundations, steel and wood frame, corrugated iron roofs and sides and concrete and asphalt floors). *TT 0.4: P 0.4: RC 0.4: D 0.4.*—Sept. 1918 to Feb. 1920 and June 1923 to Aug. 1926 Designer and Checker, The Koppers Co., Pittsburgh, until Feb. 1920 designed reinforced concrete floors and foundations, made drawings for industrial buildings, plumbing, heating systems, brickwork, piping, etc., detailed structural steel and made layouts for mechanical equipment, and after June 1923 designing and checking reinforced concrete track hoppers, coke wharves, tunnels, and conveyor gallery foundations, circular and rectangular bins, etc. *TT 4.3: SP 0.3: P 4: D 4.*—Feb. to April 1920 Checker, Blaw-Knox Co., Hoboken, Pa., detailing and checking structural steel for transmission towers and buildings. *TT 0.2: P 0.2: D 0.2.*—April 1920 to June 1923 with Div. of Bridges, and Aug. 1926 to date with Bureau of Bridges and Structures, Pittsburgh, Pa., until June 1923 as Asst. Engr. Designer on design, plans, estimates and specifications for construction and repair of bridges by contract, having charge of Viaduct No. 1, Boulevard of the Allies (1500 ft. long) and Schenley Park Grandstand, and since Aug. 1926 Designing Engr., in charge of design, plans, estimates and specifications for repair of bridges by contract (7 months) and Div. Engr., Div. of Design, in charge of design and specifications for bridge repairs and for construction of bridges and structures, including railroad bridges, viaducts, etc. (spandrel arch, deck cantilever, girder, etc., 305 to 1100 ft. long, \$513 000 to \$750 000, some named in application). *TT 6.5: P 6.5: RC 6.5: D 6.5.*—*TT 19.4: SP 2.3: P 17.1: RC 8.9: D 14.9.* Refers to A. Ackenhell, H. S. Ayres, C. K. Harvey, H. R. Hortenstine, F. W. Lyon, C. M. Reppert, R. M. Riegel, J. D. Stevenson.

1399

(7) **WIETERS, ALFRED HENRY**, Assoc. M., Care, State Dept. of Health, Des Moines, Iowa. (Elected May 8, 1922.) (Age 35. Born Lanham, Kans.) 1917 B. S., Univ. of Kans. *TT 4: P 4.*—June to Dec. 1917 with Black & Veatch, Kansas City, Mo., on topographical survey, water and sewer layout and construction, Camp Pike, Ark.; Res. Engr., water-works, Tonganoxie, Kans. *TT 0.5: P 0.5.*—Dec. 1917 to April 1918 Asst. Engr., Kansas State Board of Health, Lawrence, Kans. *TT 0.4: P 0.4.*—April 1918 to Jan. 1919 2d Lieut., Corps of Engrs., U. S. Army. *TT 0.7: P 0.7.*—Feb. to May 1919 with Black & Veatch, on preliminary survey of water supply for Guthrie, Okla., resurvey of Camp Pike, Ark. *TT 0.3: P 0.3.*—May 1919 to Nov. 1921 Asst. Engr., Kansas State Board of Health, Lawrence, 1½ years also Prin. Asst. and Asst. Prof., San. Eng., Univ. of Kansas. *TT 2.5: P 2.5.*—Nov. 1921 to Dec. 1926 Director, Div. of San. Eng., South Dakota State Board of Health, Waubay, S. Dak. *TT 5.1: P 5.1: RC 5.1.*—Dec. 1926 to date Chf., Div. of San. Eng., Iowa State Dept. of Health, Des Moines, Iowa. *TT 2.9: P 2.9: RC 2.9.*—*TT 16.4: P 16.4: RC 8.* Refers to J. Berg, E. B. Black, E. Boyce, C. H. Currie, C. A. Haskins, F. M. Veatch, N. T. Veatch, Jr., E. L. Waterman, C. C. Williams.

FROM THE GRADE OF JUNIOR

1400

(9) **BROWN, ERNEST OSCAR**, Jun., 222 Hickory St., Dayton, Ohio. (Elected Jan. 16, 1928.) (Age 29. Born Dayton, Ohio.) Sept. 1919 to June 1922 Student in Civ. Eng., Univ. of Dayton, Ohio. *TT 1.5: P 1.5.*—June to Dec. 1918 Rodman on levee construction, Miami Conservancy Dist. *TT 0.3: SP 0.3.*—June 1922 to Sept. 1923 Die Designer, Legler-Ellerman Co., Dayton, Ohio, designing die-casting dies. *TT 1.3: P 1.3: D 1.3.*—Sept. 1923 to date with Dept. of Public Service, Dayton, until April 1927 as Inspector on street, alley and sewer projects, in charge of sidewalk construction and repair, also Acting Asst. Engr. on design and construction of street and alley pavement (\$183 000), then Asst. City Engr., designing and constructing streets and alleys (\$325 000), also Designing and Locating Engr. on two storm sewers (\$40 000 and \$200 000). *TT 6.2: SP 1: P 5.2: RC 2.5: D 1.1.*—*TT 9.3: SP 1.3: P 8: RC 2.5: D 2.4.* Refers to G. F. Baker, C. S. Bennett, J. F. Hale, M. Hay, W. W. Morehouse, E. W. Riber, B. T. Schad, C. H. Shea.

1401

(15) **DAWSON, RAYMOND FILLMORE**, Jun., Bureau of Eng. Research, Univ. of Texas, Austin, Tex. (Elected Aug. 4, 1924.) (Age 29. Born Pennville, Ind.) 1923 B. S. C. E., Purdue Univ. *TT 4: P 4.*—June 1923 to June 1926 Jun. Testing Engr., Illinois Div. of Highways, inspecting and testing materials for roads and pavements, research work on concrete pavements and sub-grade materials. *TT 3: P 3.*—June 1926 to July 1928 Research Engr., U. S. Bureau of Public Roads, on co-operative research project at Purdue Univ., investigating volume change, extensibility and fatigue of concrete. *TT 2.1: P 2.1: RC 2.1.*—July to Oct. 1928 Research Engr., Indiana State Highway Comm., in charge of investigations. *TT 0.3: P 0.3: RC 0.3.*—Oct. 1928 to date Testing Engr. and Asst. Director, Bureau of Eng. Research, Univ. of Texas, in charge of engineering research and of Materials Testing Laboratory. *TT 1.1: P 1.1: RC 1.1.*—*TT 10.5: P 10.5: RC 3.5.* Refers to E. C. H. Bantel, H. F. Clemmer, E. L. Eriksen, J. A. Focht, W. K. Hatt, T. U. Taylor, R. B. Wiley.

1402

(1) **ELLIS, ROBERT RICHARDSON, Jr.**, Jun., 114 Liberty St., New York City. (Elected Nov. 12, 1928.) (Age 29. Born New Orleans, La.) 1926 B. S., Mass. Inst. Tech. *TT 4: P 4.*—June to Sept. 1920, Dec. 1920 to Dec. 1921 and June to Sept. 1924 with Ward Line Steamship Co., Eng. Dept., on construction of San Jose (Terminal) Docks in Havana Harbor, Cuba, inspecting, pile driving, concrete placing, line and grade, some supervision, etc., in 1924 being Asst. to Chf. Engr. on construction. *TT 0.6: SP 0.6.*—Oct. to Dec. 1920 with Smith & Ames, Engrs., Havana, as Instrumentman on railroad survey, Camaguey, Cuba. *TT 0.1: SP 0.1.* Feb. to Sept. 1923 Asst. Civ. Engr., Punta Alegre (Camaguey) Sugar Mill, in charge of parties on railroad surveys, railroad construction, drainage layout, etc. *TT 0.7: P 0.7: RC 0.7.*—Sept. 1925 to June 1926 Office Engr., Underwriters' Laboratories, Boston, Mass., mechanical engineering, including factory inspection of approved devices and in charge of general supervision of inspection of factories, Boston Div. *TT 0.8: P 0.8: RC 0.5.*—Aug. 1926 to Dec. 1927 Engr., Packard Elec. Co., Warren, Ohio, on design of distribution, small power and instrument transformers. *TT 1.3: P 1.3: D 1.3.*—Dec. 1927 to date Engr., Frederick Snare Corporation of New York, Havana and Philadelphia, until May 1928 on design of concrete buildings, wharves and piers, then Engr. of Constr., North Market St. Bridge, Wilmington, Del., Oct. 1928 to March 1929 Engr. on erection of Belle Chase (La.) Crane for Overseas Rys., Inc., also on investigation of proposed work, etc., March to June 1929 on investigation of proposed maritime terminal on Magdalena River at Barranquilla, Colombia, including investigation of sites, field work, design of proposal terminal, etc., June to Sept. 1929 Engr. on Rio Blanco (Porto Rico) hydro-electric development, including design, field supervision, layout of penstock line, etc., and since Sept. 1929 Engr. in Lima office, on engineering in connection with Callao Port Works, investigation of new projects, etc. *TT 2: P 2: RC 2: D 1.2.*—*TT 9.5: SP 0.7: P 8.8: RC 3.2: D 2.5.* Refers to W. G. Ames, M. J. Backus, H. L. Bowman, R. H. Cady, G. P. Seeley, Jr., E. S. Skillin, C. M. Spofford, C. H. Sutherland.

1403

(2) **GEBHARD, JOHN CHARLES**, Jun., Naval Training Station, Newport, R. I. (Elected April 3, 1922.) (Age 31. Born New York City.) 1919 C. E., Cornell Univ. *TT 4: P 4.*—June 1919 to Sept. 1921 Cadet Engr., Bethlehem (Pa.) Steel Bridge Corporation, being Structural Steel Draftsman, Estimator, and Designer on bridges, buildings, etc.; field inspections, calculations and reports on old bridges; Field Engr. and Timekeeper on Strauss bascule bridge, exterior crane runway and steel storehouse. *TT 1.8: SP 0.5: P 1.3.*—Oct. 1921 to date Lieut. (j.g.) and Lieut. Civ. Eng. Corps, U. S. Navy, engaged as follows: Oct.

1921 to Feb. 1922 Asst. to Public Works Officer, Navy Yard, New York, on maintenance of buildings and grounds; March 1922 to June 1924 Asst. Public Works Officer and (about 4 months) acting as Public Works Officer of Virgin Islands, in immediate charge of St. Croix, construction, maintenance and operation of roads, buildings, water-front structures, water-supply, sewerage and telephone systems, etc., also Govt. Surveyor, Bldg. and Elec. Inspector, on planning, designing, purchasing, etc.; Aug. 1924 to Sept. 1928 Asst. to Public Works Officer, Navy Yard, Puget Sound, Wash., on administration of yard power plant and transportation system, in charge of public works at Radio, Torpedo and Air Stations, Ammunition Depot, and Naval Reservations in Alaska, Washington and Oregon, including inspection, designs and specifications for maintenance, repairs and construction of buildings, roads, water and sewerage systems, radio and mooring masts, electric lines, etc., also in charge of inspections and special investigations of public works in Navy Yard and of design and construction of several buildings; since Nov. 1928 Asst. Public Works Officer, Naval Station, Narragansett Bay, in charge of maintenance, repairs and construction of buildings, roads, grounds, waterfront structures, sewerage and distribution systems, ship moorings, etc., including inspection, design and execution. *TT 7.6: SP 0.2: P 7.4: RC 7.1: D 5.3.—TT 13.4: SP 0.7: P 12.7: RC 7.1: D 5.3.* Refers to W. H. Allen, G. Church, C. H. Cotter, E. R. Gayler, C. R. Johnson, J. J. Manning, C. H. Mercer, E. C. Seibert.

1404

(15) GREER, DEWITT CARLOCK, Jun., Box 235, Tyler, Tex. (Elected Dec. 5, 1927.) (Age 27. Born Shreveport, La.) 1923 B. S. in Civ. Eng., Tex. Agri. and Mech. Coll. *TT 4: P 4.*—June 1923 to Sept. 1924 Asst. Supt., Cocke & Turner Constr. Co., Marshall, Tex., on highway construction in Camp County, Tex. *TT 1.2: P 1.2.*—Sept. 1924 to June 1925 State Parks Engr., Texas State Parks Board, laying out and constructing parks. *TT 0.8: P 0.8: RC 0.8.*—June 1925 to Jan. 1926 Chf. Engr. for Homer L. Fry, Landscape Archt., Dallas, Tex., laying out and constructing city subdivisions, roads, streets, golf courses, etc. *TT 0.6: P 0.6: RC 0.3.*—Jan. 1926 to Oct. 1927 City Engr., Athens, Tex., on street paving, water and sewer extensions and a lake dam. *TT 1.8: P 1.8: RC 1.8: D 0.0.*—Oct. 1927 to date with Texas State Highway Dept., until July 1929 as Asst. Res. Engr. in Henderson County, surveying, making plans and constructing state highways, then Acting Div. Engr. on construction and maintenance of highways in Div. No. 10. *TT 2.1: P 2.1: RC 0.4.—TT 10.5: P 10.5: RC 3.2: D 0.6.* Refers to G. A. Bracher, M. B. Hodges, C. H. Kendall, W. W. McClenden, J. W. Porter.

1405

(13) HUDSPETH, BENJAMIN THEODORE, Jun., 2360 Chestnut St., San Francisco, Cal. (Elected Oct. 15, 1923.) (Age 30. Born Chico, Cal.) 1922 B. S., Coll. of Civ. Eng., Univ. of Cal. *TT 4: P 4.*—May to Aug. 1922 with Polk and Robinson, Chico, Cal., in charge of field party on rice area surveys for Sutter-Butte Canal Co. *TT 0.2: P 0.2: RC 0.2.*—Aug. 1922 to Oct. 1924 with Pacific Portland Cement Co., Cons., San Francisco, on maintenance and development work, until Dec. 1922 in charge of field work and railroad grading for plaster mill (\$1 000 000) at Gerlach, Nev.; Dec. 1922 to May 1923 on design and estimate for plaster mill; May to July 1923 Field Engr. in charge of railroad trestle rebuilding; July 1923 to July 1924 on design of cement plant constructed at Redwood City, Cal. (\$3 000 000), and (short periods) in charge of field parties on maintenance, reconnaissance and diamond drilling; July to Oct. 1924 in charge of core-drill prospect party on 30 000-acre oyster shell deposits, San Francisco Bay. *TT 2.1: P 2.1: RC 1: D 1.1.*—Oct. 1924 to June 1925 with California State Eng. Dept., on water resource investigation and flood control and reclamation reports and calculations. *TT 0.6: P 0.6.*—Aug. 1925 to Feb. 1926 with County Surveyor, Yolo County, Cal., field work and design on county highway and maintenance. *TT 0.5: P 0.5: RC 0.3: D 0.2.*—Feb. 1926 to date with Eng. Dept., Board of State Harbor Comms., San Francisco, Cal., until June 1926 on general drafting, June 1926 to Jan. 1927 in charge of design for pier (\$2 000 000), Aug. 1926 to Jan. 1927 on design of steel-frame transit sheds for pier, Jan. 1927 to Aug. 1928 on outside inspection, general office work and design in connection with waterfront maintenance and new construction, Aug. to Oct. 1928 Inspector in charge of two piers under construction, and since Oct. 1928 in charge of design of steel-frame transit sheds for these piers. *TT 3.8: P 3.8: RC 2.4: D 2.7.—TT 11.2: P 11.2: RC 3.9: D 4.* Refers to W. J. Ashley, H. L. Baldwin, C. Derleth, Jr., A. W. Nordwell, H. E. Squire, F. G. White, G. A. Wood.

1406

(10) JOHNSON, RUBEN CUMBY, Jun., 1507 Pendleton St., Columbia, S. C. (Elected Oct. 1, 1926.) (Age 29. Born Montgomery, Ala.) 1924 B. Sc., Rice Inst. *TT 4: P 4.*—Summers 1923 and 1924 Draftsman, Houston (Tex.) Structural Steel Co., detailing steel. *TT 0.1: SP 0.1.*—Sept. 1924 to Aug. 1925 Draftsman, American Bridge Co., Pencoyd, Pa., detailing

steel. *TT 0.5: SP 0.5.*—Aug. 1925 to Sept. 1927 Draftsman and Concrete and Steel Designer, U. G. I. Contr. Co., Philadelphia, Pa., drawing plans of and designing structural steel and concrete. *TT 1.5: SP 0.5: P 1.*—June to Sept. 1928 Designer, Duke Power Co., Charlotte, N. C., on concrete and steel for steam power plant. *TT 0.2: P 0.2: D 0.2.*—Sept. 1927 to June 1928 Adjunct Prof., and Sept. 1928 to date Associate Prof., of Civ. Eng., Univ. of South Carolina. *TT 2: P 2: RC 2.*—*TT 8.3: SP 1.1: P 7.2: RC 2: D 0.2.* Refers to C. B. Brown, N. S. Fuleihan, P. L. Heslop, J. G. Moore, W. E. Rowe, L. B. Ryon, Jr., L. A. Whitsit.

1407

(8) **LANSFORD, WALLACE MONROE**, Jun., 1208 West Clark St., Urbana, Ill. (Elected July 16, 1928.) (Age 29. Born Shoblineer, Ill.) 1924 B. S. in Civ. Eng., and 1929 M. S. in Eng., Univ. of Ill. *TT 4: P 4.*—Summer 1923 Inspector and Rodman for City Engr., Urbana, Ill.—June 1924 to May 1927 Asst. to City Engr., Champaign, Ill., being Inspector, Rodman, Draftsman, Instrumentman and later in charge of outside work, sewers, pavements, sidewalks; designed storm- and sanitary-sewer systems, checked building plans. *TT 2.9: SP 0.1: P 2.8: RC 1.5.*—May to Sept. 1927 Chf. of Party, Kelker, DeLeuw & Co., Chicago, Ill., staking out and preliminary work on sewers, water lines, pavements and surveys, six suburban towns. *TT 0.4: P 0.4: RC 0.4.*—Sept. 1927 to Feb. 1928 Graduate student, Coll. of Eng., Univ. of Illinois.—Feb. 1928 to Sept. 1929 Special Research Asst. and Sept. 1929 to date Instructor, in Theoretical and Applied Mechanics, Univ. of Illinois. *TT 1.8: P 1.8: RC 1.6.*—*TT 9.5: SP 0.1: P 9.4: RC 3.5.* Refers to H. Cross, M. L. Enger, F. C. Lohmann, F. E. Richart, J. Vawter, C. C. Wiley, C. C. Williams.

1408

(1) **LECLERCQ, EMILE PAUL**, Jun., 232 Knox Ave., Grantwood, N. J. (Elected March 15, 1926.) (Age 26. Born Grantwood, N. J.) Registered Prof. Engr. and Land Surveyor, State of New Jersey. 1925 B. S. C. E., Manhattan Coll. *TT 4: P 4.*—Summers 1921–1924 Instrumentman, Draftsman and Chf. of Party, and June 1925 to date Res. Engr., with McClave & McClave, Cliffside, N. J., on real estate developments, surveys, sewers, highways, etc.; made preliminary surveys and investigations, prepared designs, specifications and estimates for municipal and public utility improvements, including sewerage systems and sewage-treatment plants for Englewood Cliffs, Hillsdale, Maywood and Fairview, N. J. (over \$1 000 000), and supervised the construction at Englewood Cliffs; also supervised construction of highways in Boroughs of Little Ferry, Fairview and Englewood Cliffs. *TT 4.4: P 4.4: RC 2: D 2.3.*—*TT 8.4: P 8.4: RC 2: D 2.3.* Refers to C. L. Bogert, J. J. Costa, S. W. McClave, Jr., F. J. Oleri, R. C. Wheeler.

1409

(14) **MARR, JOHN GENTLE**, Jun., 317 North Eleventh St., St. Louis, Mo. (Elected July 16, 1928.) (Age 26. Born New York City.) 1925 B. S., Rutgers Coll. *TT 4: P 4.*—June 1926 to Feb. 1928 Asst. Engr., Commonwealth Associates, Inc., New York City, on earthwork and subdivision calculations, in charge of boundary and development surveys, Asst. on supervision of construction. *TT 1.8: P 1.8.*—July 1925 to May 1926 and Feb. 1928 to date Res. Engr. for Harland Bartholomew & Associates, at Key West, Fla., on estimates for development, calculations for subdivision plats and in charge of preliminary and boundary surveys, and since Feb. 1928 on report of system of major streets for Peoria, Ill., and environs and Asst. City Planner on reports of zone and major street plans for Maplewood, Clayton and Springfield, Mo., and major street plans for Tulsa, Okla. *TT 2.6: P 2.6: RC 2.6: D 1.8.*—*TT 8.4: P 8.4: RC 2.6: D 1.8.* Refers to H. Bartholomew, W. A. Heimbuecher, W. Holden, W. W. Horner, D. Kippel, H. N. Lendall.

1410

(1) **RUSTAN, ARVID KONRAD**, Jun., Majorstuen Kraftstation, Slemdalsvelen, Oslo, Norway. (Elected July 16, 1928.) (Age 25. Born Oslo, Norway.) 1925 C. E., Oslo Tech. Inst. *TT 4: P 4.*—Jan. 1921 to June 1923 Surveyor and Foreman with A/S Boerumsbanen, Baerum, Norway, on railroad surveying, tunnel and excavation work, draftsman. *TT 1.2: SP 1.2.*—1926 Field Engr., Chile Exploration Copper Co., Chuquicamata, Chile, on railroad and trestle design and construction, road and concrete construction. *TT 0.9: P 0.9: RC 0.5.*—May to June 1927 Draftsman, Utah Copper Co., Bingham Canyon, Utah, on topographical work. *TT 0.2: P 0.2.*—June to Dec. 1927 Civ. Engr., Anaconda (Mont.) Copper Co., on plant construction. *TT 0.5: P 0.5: RC 0.5.*—1928 with Betz Bros., Clifton, N. J., converting factory into modern hollow metal door and trim factory, designing and supervising same. *TT 1: P 1: RC 1: D 1.*—Jan. to Oct. 1929 Designer, Elec. Bond & Share Co., New York City, on reinforced concrete. *TT 0.8: P 0.8: RC 0.8.*—*TT 8.7: SP 1.3: P 7.4: RC 2.8: D 1.* Refers to W. E. Brown, P. L. Hornby, R. Kleppe, R. H. Mann, E. D. Meyer, W. E. Rudolph, H. H. Steinhauser.

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(15) STEPHENS, GOUVERNEUR ROBERT, Jun., 714 East Polk Ave., Harlingen, Tex. (Elected Aug. 30, 1926.) (Age 29. Born Hamilton, Ohio.) 1923 B. S. in Civ. Eng., Agri. and Mech. Coll. of Tex. TT 4: P 4.—May to Sept. of years 1916 and 1918 and June to Sept. 1919 Rodman and Chainman, United Irrigation Co., Mission, Tex. and (1919) with Rufus Thaxton, Engr.—March to Sept. 1922 Rodman, Chainman, Topographer, Levelman and Draftsman, Hidalgo County, Tex., road surveys.—June 1923 to Jan. 1925 with Illinois Highway Dept., as Chainman, Stakeman, Rodman, drafting, checking, road plans and engineering office work, about 6 months Res. Engr., and about 6 months Inspector, on bridges, concrete pavement, culvert construction, etc. TT 1.2: SP 0.5: P 0.7: RC 0.7.—Jan. 1925 to date with A. Tamm, Harlingen, Tex., until July 1925 as Chf. of Party on preliminary surveys, maps and construction plans for Hidalgo County Water Improvement Dist. No. 5, irrigation plans, surveys, estimates, subdivision, etc., plans, estimates, specifications for sewer extensions, City of Harlingen, etc., Engr. in charge of storm and sanitary sewer and gutter construction, design of concrete structures for an irrigation district, surveys, subdivision, general design, drafting plans, estimates, and charge of construction of paving, Harlingen, etc., specifications for water-treating plant; April 1926 to Sept. 1927 Engr. in charge of paving (about \$1 000 000) for City of Harlingen and of construction of extension to sewers, general municipal work and design; since Sept. 1927 Engr. on estimates, specifications and plans and in charge of storm sewer and pavement construction, City of Harlingen, general design of irrigation and drainage structures, in charge of irrigation pipe-line installation near Harlingen; Asst. Engr. on plans and specifications, Mestenas Water Co. and Cameron County Water Improvement Dist. No. 15 and Weslaco Road Dist., general subdivision and engineering office work; plans and estimates for Arroyo Navigation Dist. TT 4.9: P 4.9: RC 4.9: D 1.5.—TT 10.1: SP 0.5: P 9.6: RC 5.6: D 1.5. Refers to A. E. Anderson, T. L. Bell, Jr., B. S. Gentry, J. J. Richey, A. Tamm, W. O. Washington.

The Board of Direction will consider the applications in this list not less than thirty days after the date of its issue.